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SPECIAL ARTICLES.

NEW YORK ACADEMY OF MEDICINE. VALEDICTORY ADDRESS.

BY ROBERT F. WEIR, M.D., HON. F.R.C.S., ENG.

OF NEW YORK;

RETIRING PRESIDENT.

Fellows of the Academy, Ladies and Gentlemen:

You have heard the reports of the various officers of the Academy and have learned that its affairs are progressing satisfactorily, and that the year closes with a surplus—though not a large one—in the treasury. This latter I particularly regret as it shows that the needs of the Academy as at present conducted necessarily absorb practically all its income. Two years since the number of its resident members was 774, of which there were 739 from the City and 35 from the State. Now, at the close of my term of office it remains nearly at the same figures, viz.: 789 Resident Fellows, of which 740 are from the City and 49 from the State. I had hoped that some measure ere this would have been presented whereby the gates of the Academy, now narrowed by a large annual subscription, might have been broadened by lessened dues, so that many of the able but struggling young men of the profession might enter its doors. It was hoped early in my administration that a minimum yearly due of \$5 or \$10, such as has been accorded to the State members, might be extended for a limited number of years in a graduated manner to entering members as an inducement to attract what is the life and progress of any medical society, viz., the young men of the profession; for without them there is no advance. It has, however, been found impracticable to effect this without disturbing the financial adjustment of the institution. Therefore I am compelled to leave the solution of this question to my successors. I believe, however, it to be of vital importance to the future of the Academy to guard against the threatening ease of senility that is apt to assail long existing societies.

During the past year the average attendance at the Stated Meetings of the Academy has been, for 1901, 87; for 1902, 104. The maximum attendance was, for 1901, 140; for 1902, 210. As this is larger than has been in the past, my thanks for these results must be given to the Vice-Presidents and others of my professional friends who have aided me in carrying out these meetings. The most zeal is manifested at the Section Meetings, and though there is more activity to be expected and found in the branches than in the body, yet the old fable teaches us that the belly and the mem-

bers cannot be separated. The average attendance at these meetings of the Sections was as follows:

Medicine, 70; Otology, 67; Laryngology and Rhinology, 40; Obstetrics and Gynecology, 37; Pediatrics, 36; Ophthalmology, 35; Surgery, 32; Genito-Urinary Diseases, 32; Orthopedics, 25.

Since the foundation of the New York Academy of Medicine, in 1847, there have been 27 Presidents elected. The term of service until 1859 was for one year. It was then lengthened to two years, which rule holds good at the present time. Several Presidents by their popularity and ability have been reelected for one or two additional terms of office. These were Dr. Anderson, President from 1861 to 1866, Dr. S. S. Purple, 1875-78, Dr. Fordyce Barker, 1879-84; Dr. A. Jacobi, 1885-88, and Dr. A. L. Loomis, 1889-92. Notwithstanding these distinguished servitors of the Academy did admirable and laudable work for the institution and fully deserved their reward, yet since this last date a growing feeling has silently developed that the one term service is to be advocated. In this I fully concur and trust that it will become the rule. The conferring of the distinction of being the presiding officer of your noted body cannot lessen the dignity of the position by occurring fifty times in a century.

Among all these names so well known in the history of medicine and surgery in this city and country, there are to be found only those of five surgeons. Dr. Valentine Mott, 1849-1857; Dr. A. H. Stevens, 1851; Dr. Willard Parker, 1856; Dr. John Watson, 1859; Dr. A. C. Post, 1867, and Dr. J. D. Bryant, 1895. Why surgery has been so slightly represented in so august a position as this is, is not easy to say. It may be from the modesty of character for which the surgeon is so noted, or perhaps from his freedom from ambition, or perhaps from his inability to understand or manage what is called medical politics. The lesser position that surgery held to medicine forty years ago is more likely to account for the pre-eminence justly given to the pure physician. But this no longer holds. Surgery leads nowadays as the curative agent, and will continue, I believe, in this lead. Important and numerous diseases then treated medically are now treated surgically, and the reverse seldom occurs. It is true that perhaps with the advent of an improved serum therapy the tables may again be turned.

It may be of possible interest to some of the Fellows who knew these eminent surgical worthies, as well as to those whose knowledge of them

is naught or but scanty, to recall certain facts in their career. To me individually this would be an interesting retrospect, as I knew them all personally.

The first of the surgical Presidents and one of the founders of the Academy, was Valentine Mott. He was born in 1785 and was still practising surgery and lecturing at the University Medical College when I was a medical student in 1856-59. He was and is yet regarded as the most eminent of American surgeons. Of him Sir Astley Cooper said, "He has performed more of the great operations than any man living or that ever did live." His original operations consisted of ligature of the innominate artery, ligature of the common iliac artery, resection of the entire clavicle, resection of the lower jaw, resection and ligature of the deep jugular vein, suturing wounds of veins.

Mott was a very distinguished-looking man and was in a finely preserved condition of health when I first met him. He was neatness personified, carefully valetted and in clothes of spotless black, displaying a shirt front that would have driven a Chinese washman mad with envy. In earlier life Mott was dressed in the old Quaker style that I last saw in the person of the late George F. Trimble, a Quaker and President of the New York Hospital. This consisted of a long, snuff-colored, single-breasted coat with large skirts, an ample waistcoat reaching to the iliac bones, small clothes or knickerbockers to the knees, with silk stockings and low shoes with steel buckles. Dr. Gurdon Buck, my preceptor, told me that Dr. Mott changed this becoming dress to that of the ordinary gentleman because of a mishap that arose from a fond mother placing her infant on the Doctor's knee to be dandled on a gala occasion, when he was attired correspondingly in his best light knickerbockers.

I only once saw him operate in an important case. It was on a patient having a subclavian aneurism in which it was decided at the consultation held by Mott with Drs. Buck and Markoe to ligate the artery on the distal side of the aneurism. Mott chose to ligate below the clavicle and with the bone held in position by "my son Alexander," with one sweep of his scalpel the artery was laid bare. As a medical student I was overwhelmed with admiration at a so well calculated incision. But Dr. Markoe said *sotto voce* afterward in the next room, that the artery had had a narrow escape. It did.

Dr. Mott died in 1865 from thrombotic gangrene. His estate was valued at a million of dollars. His largest fee was \$1,000, and this he only received twice. This is a striking contrast to the inflated charges of the present day.

But, though Mott was the most noted, yet the surgeons of this city pinned their faith rather to his rival, Dr. Alexander H. Stevens, who was President of this Academy in 1851 and also one of its founders, and who was for many years Professor of Surgery in the old

Crosby Street College—the College of Physicians and Surgeons. Born four years later than Mott, their careers ran side by side and each died in years well beyond the allotted span of life. Like Mott he was also a surgeon to the New York Hospital and there served over twenty years as attending surgeon and, with Mott, was the first to introduce clinical instruction in that institution. Their methods of operating distinctly varied; indeed, Dr. Stevens remarked in his eulogium delivered before this Academy on the occasion of Dr. Mott's death that he not infrequently cut in a manner purposely avoiding neatness in order to show the students that patients would get well without that delicacy of manipulation and nicety of treatment which some surgeons deemed so essential. Which remark smacks somewhat of that of Volkmann, who tersely said, "Give me antiseptics and I'll operate in a privy."

Dr. Stevens was a very successful operator and was expert in the many little things that bring out the best results. As a teacher he was very impressive and I yet remember the occasional words that as President of the College he would let drop from a huge mouth rendered apparently larger by a thin cadaveric face and deep set eyes. He was always spoken of with the deepest respect and never did I hear from my predecessors who knew him well, any word of detraction.

Dr. Willard Parker, the third of the Academy's surgical Presidents, was elected in 1856. What better can be said of him than the quotation from Coriolanus, heading his memorial, by Dr. Francis, "A worthy man." Of a magnificent physique and magnetic manner, with a never-failing cheerfulness and frankness, he was an attractive man to every one. A good surgeon but a better teacher. Though when I was a student his time was passing, yet the principles of surgery that he hammered into the students generally were clearly and forcibly expressed, and never forgotten. Though rest and diet made up the greater part of his remarks, yet they have borne fruit, and have been corroborated by writers and by experience.

Born in 1802 and starting active life first as a farmer's boy, ambition forced him through the positions of village school teacher, then college graduate paying his own way, and finally a graduate in medicine in 1830. A month following his graduation, strange to say, found him lecturing on anatomy in the College of Physicians and Surgeons. This, however, only lasted a few weeks. He subsequently held a professorship in the Cincinnati Medical School and in 1839 succeeded Dr. Alexander H. Stevens in the Chair of Surgery of the College of Physicians and Surgeons in this city. He was surgeon to Bellevue and to the New York Hospital, and it was in the latter place that I served under him as House

Surgeon. He was then overwhelmed by an immense practice and his hospital time was often limited. I remember visiting the wards with him and as he entered the long room he said, "Dr. Weir, the by-laws state that as Attending Surgeon I shall see every patient at least three times a week." As he uttered these words he took a complete look around the whole ward and remarking, "I have done it," turned on his heel and went out. The next day, I should say in justice, he made an extra long visit.

Dr. Parker made two (perhaps more) memorable hits in surgery. He was the first to advise and do perineal cystotomy for the relief of intractable cystitis, carrying out the principle that he so earnestly insisted on of placing and keeping inflamed parts at rest. The second was the dawn of a great surgical epoch, for he was the first to operate on appendicitis.

He also was the first to insist upon dispensing with splints in the treatment of Colles' fracture of the radius, relying upon thorough replacement and the final retention by a bond of adhesive plaster, a plan recently advocated at one of our sittings here.

The next name on my list of Surgical Presidents is that of Dr. John Watson, born in Ireland in 1827, who was the partner and successor in practice to Dr. Alexander H. Stevens. He was for many years the Senior Surgeon to the New York Hospital. He was a testy and irritable man and was possessed of great learning and less knowledge, for there is a distinction between the two. From him we juniors acquired much by listening to his remarks, but of him in his operations it was said by the House Staff that we learned most from his blunders. This callow criticism was not confined to him, but was referred generally to the Attending Staff, and is yet made not only of the past surgeons but alas! even of those of the present period. Nothing is so keen as the judgment of a hospital interne.

Dr. Watson's treatment of specific disorders, thanks to his familiarity with the then new doctrines of the French school, was much ahead of his colleagues', and was very beneficial not only to his patients but to the House Staff and to the students who then walked the wards of the Hospital. His quickness of temper betrayed him and Dr. Markoe once into an excess of language that shocked us who knew them both to be strict members of the Presbyterian Church. The occasion was this: In the course of a difficult removal of a tumor from the neck by Dr. Watson in which there was a large exposure of the parts with a rather troublesome hemorrhage from a deep vessel, and when the artery had finally been caught up by the now disused tenaculum and was ready to be tied, Dr. Markoe, who as the surgeon of the other Surgical Division of the Hospital and hence was called upon to assist Dr.

Watson, said, "Stop a moment, Dr. Watson, that we may observe the handsome anatomical display you have made in your operation. See how finely," he continued, "is shown the carotid artery, the jugular vein and ——" "Devil take all that," said Dr. Watson, with emphasis. "Will you tie that artery or not?" "Devil take it," promptly replied the other church member, "I will, since you are in such a devilish hurry." A pretty example, wasn't it, for us juniors?

But Dr. Watson was withal a just and kind man to all his subordinates, and his faithfulness and zeal in his professional duties commended him to his fellows, and he was properly honored in his election to the Presidency of the Academy in 1859. He died in 1863 from cancer of the rectum.

The next surgeon filling this office was Dr. Alfred G. Post. Very wise, very industrious, and so upright in his character, speech and doings that some said he bent backward. His labors never ceased. His interest was great in small things as well as in large matters. Every detail of surgery aroused his zeal; every society found him present with pockets always holding some minute specimens that he perhaps had removed that afternoon at his clinic; the details of which would be given in a very precise tone of voice and with most careful enunciation of each syllable, and uttered with the choice of the longest possible Greek words or combination of Greek derivatives to describe the disease or condition that the specimen illustrated.

Once he presented at the Medical and Surgical Society the thigh bone of a chicken that had a queer growth on it, which he pronounced an enchondroma. Dr. Metcalf, the most genial wit in the medical coterie of that time, interrupted Dr. Post by saying: "Pardon me, Dr. Post; you mispronounced the word; you should say of the specimen that it is a *henchondroma*."

While we all admired Dr. Post's talents and zeal, we irreverent juniors would not always refrain from joking a bit about him. At another time in the Surgical Society after he had indulged in the narration of several cases much larded with long and Greek-laden words, I had the opportunity to show a case of refracture of the thigh, but as I did this (with one eye on Dr. Post) I stated that I begged to present an illustration of the operation of dysmorphosteodiasis, a word that I had found in a German surgery, and which with the help of my Greek dictionary I had carefully worked up for Dr. Post's particular delectation. As I uttered the jaw-breaker, which was the Greek version of "a refracture of a badly united bone," Dr. Post stuck his head forward with one ear inclined strongly to me and asked sharply as I finished: "Will Dr. Weir kindly repeat that word?" And as I did so he jotted it down and set to work to analyze it, which he did in a few minutes, and after the meeting joined us mildly in the joke then detailed to him.

Born in 1806 and a descendant of a well-known New York family, he became in course of time connected with the College of Physicians and Surgeons and with the New York Hospital, for these were the two goals of ambition to the able and young medical men of that time. There was no other noted medical college or hospital excepting Bellevue until a later period. His plastic work, like that of Dr. Buck, was very successful and meritorious, but he knew better how to use the scalpel than when to refrain from its employment. His removal from his old home and office in Seventeenth street to Madison avenue, near Forty-second street, in about 1860, illustrate our city's marvelous growth. His friends then all jeered at him by saying that he had become a country practitioner.

The last of the surgical holders of this chair is my friend, Dr. Joseph D. Bryant, who was elected in 1895, who is yet living to enjoy the additional honors that he deserves. The old maxim to say nothing but good of the dead does not encourage one to do the opposite and sling malice at the living. Were it even so, I nor any man could do or say aught but good of so able and so kindly a man as Dr. Bryant. Happy indeed would I be could I have the same regard from the profession.

My little endeavor to recall the surgeons that you have in the times past called to the presidential chair is finished, and there only remain a few words to be said on the work of the Academy during the past two years under my supervision. At first I feared lest the energy and activity of the Sections would possibly detract from the attention and attendance given to the stated meetings. But this has not been realized. The subjects presented at the general meetings have been of much interest and have been most acceptably received, as the increased attendance shows. Listening, sometimes enforced upon me by my position, has not only benefited me (much like a listless student by a didactic lecture), but has renewed again and again in me my appreciation of the enormous advances medicine and surgery have made in the last forty years, and particularly so in surgery, and I regretted exceedingly that it had not occurred to the Academy to join in the jubilee celebration of the fiftieth anniversary of the medical practice of Lord Lister, which was duly honored in London and particularly so in the pages of the *British Medical Journal* of December 13, 1902. It is hard to say which is the greater boon to surgery, anesthesia or antiseptic surgery. Owing to the rancorous contention of the friends of Morton and Wells the monument on Boston Common carries no name, but simply the words "To the discoverer of Anesthesia." I had rather it had been adorned with Holmes' witty suggestion, "To Either." But no such confusion rests with the promulgator of the antiseptic treatment of wounds. This treatment has saved thousands and thousands of lives; it has rendered possible previous impossible surgical procedures; it has developed the art of

surgery beyond the expected, and it has stimulated the science of medicine to an incalculable degree. But it could not have done all it has done without anesthesia. If the soldiers of France would not go into battle without Ambrose Paré was with them, no more would they more willingly now go forth without the help of anesthesia, for the direst messages in the Civil War, in positions of the greatest straits, read often, "We are without food and chloroform."

Naught further remains now for me to say or do. Let me, therefore, close by thanking the Fellows for their support and attention during my term of service, and to transfer the gavel, the symbol of the office, to my distinguished successor, Dr. Andrew H. Smith.

THE YOUNG PRACTITIONER.*

BY ANDREW H. SMITH, M.D.,
OF NEW YORK.

THE kindness ever received from my colleagues and particularly during my early professional days, has always inclined me to take a special interest in those who are entering upon the trials and difficulties, the hopes and fears, the ambitions and the rebuffs, the successes and the disappointments that count for so much in the first years of professional life.

Except for a favored few who inherit a competency, we are obliged in some degree to measure our success by the standard, sordid though it may be, that applies to other vocations in life. In other words, we are successful in proportion as the legitimate pecuniary returns we derive from our profession suffice for our actual requirements. There are other elements that enter into success, but if our profession does not yield a reasonable living those elements alone cannot redeem it from the stigma of failure.

Lofty aspirations, benevolent impulses, cheerful sacrifice of self are the *adornments* of professional life, but by themselves they neither feed nor clothe. We cannot draw checks against them nor will they pass current with the tradespeople with whom we deal.

Happily, however, the case of the young practitioner is not really discouraging even from the coldly practical side. It may be said that any man of fairly good ability who is properly educated and will work diligently along the lines to be presently indicated will almost certainly achieve a pecuniary return greater than the average obtained by embarking an equivalent capital in a business career. While brilliant successes in medicine are rare, absolute failures are extremely uncommon. When we add the social position which the practitioner enjoys by virtue of his profession the scale turns very decidedly in his favor.

It has been my fortune to be consulted very often by young doctors about to begin practice

*From Inaugural Address as President before the New York Academy of Medicine, January 15, 1903.

in this city, and who have asked advice, first as to location and then as to the general course of action tending most to insure success. To the first question I know of no better answer than the old advice to select a place where the poor will not be afraid to come and the rich will not be ashamed to be seen. This, of course, will be located on one side or other of the town and somewhat removed from the residential centers. But after all, accessibility to the poorer population is not so much a question of the locality of the doctor's residence as of the character of the man himself. Neither the poor man nor the rich strays by accident into a consulting room; there must be something in the doctor to attract him. If he is known to be considerate and careful in his attendance upon his humbler patients they will be emboldened to come to him wherever he may be.

And this leads me to insist that the young practitioner especially should give the same careful attention to the charity patient who intrusts his health or life to him as to the one who pays him the maximum fee for every visit. Only so can he completely discharge his duty, and only so can he win that respect and confidence that must underlie professional reputation as a necessary condition of success. Success thus grounded will be enduring and progressive, and in time will be certain to include a clientele in every way desirable.

From a superficial point of view it will sometimes appear that the interests of the practitioner and of the patient are at variance, and the test of the ethical fiber of the doctor will be his ability to realize and act upon the fact that the interests in question are *always* identical. In other words, whatever course is really best for the patient is best for his medical adviser. So absolute is this rule that the moment the latter begins to calculate what will be the result to himself of a rigid performance of his duty to his patient, that moment he is placing his own interest in jeopardy. A familiar example of this is when a physician seeks to make himself "solid" in any event by imposing excessive restrictions upon his client regardless of the sacrifices they may involve. The man who at the same time has a moderate bronchial catarrh and a note falling due at the bank will probably disregard the admonition that if he goes downtown he will do so on his own responsibility and at the risk of his life. He will take care of his note, and finding that no harm has come to him from the necessary exposure, will debit the doctor with a double entry charge of selfishness and bad judgment. How differently would the account stand if the doctor had said: "I am sorry that you are obliged to go out, and I think it involves some risk, but I appreciate the position you are placed in, and if you will go in a closed carriage and return in the shortest possible time I will share the responsibility of your doing so."

Losing sight of the principle referred to sometimes leads to a frequency of visits to a con-

valescent, which frequency is transparently due to solicitude for the doctor's bank account rather than for the patient's welfare. No amount of actual ability will protect a man from the consequences of this habit. While attentiveness during the severity of an illness is appreciated, too much of it as time goes on is also *appreciated*. When the doctor is asked the question: "How long shall your last prescription be continued?" he may infer that a daily visit has ceased to be welcome. Moreover, he may be pretty sure that he has already lost somewhat of the confidence and respect of his client.

Then comes the temptation, which some cannot resist, to charge an excessive fee to a transient patient on the "now or never" principle. The boomerang results of this, though sometimes deferred, are seldom escaped.

It is not to the advantage of any medical man to acquire the soubriquet of "Guinea-pig" or of "Dr. Come-again," as has been the case with two noted practitioners, one on each side of the Atlantic.

These are only a few illustrations of the many ways in which commercialism in medicine acts directly to the disadvantage of those who indulge in it.

But more important still is the ethical degeneration which it begets in the individual himself. There is a *descensus* more *facilis* than that to *Avernus* for the practitioner who abandons his professional standards for those that govern in the moil of trade.

The beginner in practice will be in error if he assumes that there is a certain amount of waiting to be done anyway, a certain period to be gotten through as patiently as possible. True, there is likely to be a considerable interval before he is overburdened with practice, but mere lapse of time will not bring business. The most it can do is to take something from whatever callowness of appearance may have survived the four or five years at the preparatory school, the four years at college, the four years at the medical school and the two years passed in the hospital. This waiting period of which we are speaking is perhaps the most important in the professional life. No one can afford to spend it in miscellaneous reading, in sports and games and in attendance upon social functions. It should be one of constant clinical study, the opportunity for which must be sought in public institutions and in the careful utilization of every case that comes under private observation. This is the time for notetaking, for which later there will be less leisure. Even if the notes should never be referred to afterward the practice of taking them promotes accuracy and quickness of observation, but they can be made of the greatest value in connection with subsequent reading.

The study of cases should be rather the study of patients; it should be exhaustive. In this it should conform to modern autopsical methods, which are no longer contented with merely investigating the cause of death, but which seek to

learn all of pathology which the particular cadaver illustrates.

This period of waiting for private practice affords opportunity for attending the meetings of medical societies. As a means of education such meetings are of the greatest value. The papers read present necessarily the latest aspect of the subjects treated of, and the discussions bring out not only the experience but the reading of the members taking part in them.

These meetings also bring young men into contact with the profession and make them known to those farther on in the race. This is useful in many ways, which I need not specify. It is during this period also that the foundation for a specialty is to be laid, if such a limitation of practice is decided upon. The best results can be obtained only by evolving the special out of the general practice, the latter falling away as it is gradually displaced by the former. As the specialist is obliged in the end to depend upon the general practitioner for his clientele it is essential that he should establish a reputation for fair dealing as the only basis upon which he can expect to have cases referred to him. The utmost punctiliousness in this respect is to be observed, avoiding even "the appearance of evil." A specialist who never "steals" a patient and who confines himself strictly to the malady he is expected to treat will find his services more frequently in requisition the more widely this is known to be his habit. This will not preclude a proper recognition of correlated affections, but for these the patient should be referred back to the family practitioner.

The great popularity which some specialists enjoy with the profession at large is due oftener to their fidelity to ethical requirements than to unusual skill in their particular branch.

Paradoxical as it may appear, there is such a thing as acquiring a large practice too quickly. This may result from some apparently lucky accident by which a young doctor is brought into sudden prominence, but more often it is by inheritance. Some of the worst failures to acquire a permanent success which I have ever known have been the result of succeeding to a business while not yet fitted for its responsibilities. In such a case there is no leisure for the study of patients. Work badly done does not mean experience gained, and even though the original equipment may have been good, each year is marked by retrogression instead of advance in solid professional attainment. Such men are apt to find to their sorrow that it is better to grow into a practice than to fall into one.

In summing up my advice to the young practitioner I would say: Select your location in the best section of the city that your means will allow; connect yourself with some clinic which will put you in touch with patients; see as much of disease as you can study exhaustively; treat every patient, no matter what his position, with thoroughness, kindness and consideration, recognizing his humanity even in the lowliest guise; place the in-

terest of the patient always before your own; be true in every case to the obligations imposed by your profession.

Do these things patiently and persistently and success, that is, the highest kind of success, awaits you.

Meanwhile, if an established practitioner should offer you a partnership accept it if you choose, though my own judgment is against association of this kind. Conflict of interest is inevitable, and even assuming generosity on both sides it is liable to result in much bitterness of feeling. Besides, it is a powerful tonic to a young man to feel that he is on his own feet and not riding on the shoulders of another.

There is, however, one duty which every properly qualified practitioner owes to himself and to the profession, and that is to be a Fellow of the Academy. A man owes this to himself, since by a diligent use of the advantages afforded by the Academy he may profit to a greater extent than by any other single means within his reach. Besides attendance at the meetings of the Academy and of the sections, where he can participate in discussions that bring out the best the profession can afford, he has access to the second largest medical library in America, including over 1,000 periodicals steadily received.

It is true that the liberal policy of the Academy makes it possible to avail one's self of these advantages without becoming a Fellow. But duty to the profession requires that each one should bear his share of what is borne for all. At least, this is true of those who have progressed so far as to be no longer straitened for means.

But so long as motives of economy impose considerable sacrifices upon a colleague, he can with self-respect enjoy the privileges of the Academy without assuming the slight burden of membership. All such are welcome, thrice welcome, to the auditorium, the library and the banquet hall "without money and without price." Their appreciation of the professional advantages extended to them is a guaranty that ere long they will be foremost in doing for others what has been done for them.

There are many, however, who ought to be Fellows but have never joined our ranks, most commonly for the reason that they have never been asked to do so. This is manifestly our fault, and it is to be remedied by each Fellow taking it upon himself to present the subject to suitable persons among his friends. The list now comprises about eight hundred members. These are not enough to afford sufficient income to carry the Academy along with entire credit and complete usefulness. We are compelled to forego many things which would be greatly to the advantage of the work we have in hand. We need money, for example, for the purchase of books, that we may keep the library abreast of the newest literature. We want means to publish our transactions by which we keep in touch with other learned bodies and which we have had to suspend for the last five years.

Besides these there are many minor needs, which if they were supplied would add greatly to the general efficiency of the Academy.

The addition of two hundred members, besides increasing our strength and broadening our influence, would add to our annual income sufficient to meet all these requirements.

If each Fellow would aim to bring in one new member of the proper sort at least one out of every four would be successful, and the needed number would be procured. Let us determine that before another anniversary a thousand Fellows will answer to the roll call of the New York Academy of Medicine.

Just one word more in conclusion: The work of the Academy should enlist the active cooperation of the entire Fellowship. It cannot be done creditably by the initiative of the officers alone. Every Fellow should feel an obligation resting upon himself individually either to prepare suitable papers or to procure others to do so, and to be present at the meetings and take part in the discussions.

The relation between the Academy and its members is reciprocal. It honors them, and it is their part to honor it in return. The more illustrious they make it by their labors, the more the title of Academician will be prized and the greater will be the distinction it confers.

ORIGINAL ARTICLES.

FUNCTIONAL DISORDERS OF THE BILIARY SECRETION AND THEIR TREATMENT.

BY H. RICHARDSON, M.D.,
OF BALTIMORE, MD.;
PATHOLOGIST, MOUNT HOPE RETREAT.

FUNCTIONAL disorders of the biliary secretion may be primarily divided into three forms, a morbid excess, a morbid deficiency, and a vitiation of the bile. A morbid excessive secretion of bile may exist theoretically, but there is little or no evidence that it ever produces any serious symptoms, for, provided that the bile ducts are open, any excessive quantity will be eliminated into the intestine after meals, and the only pathological effect that might take place would be distention of the gall-bladder between the periodic emptying excited by food. This might produce diminished contractile power of the walls of the bladder followed by stagnation of the bile in the gall-bladder and the consequent formation of stone. Considering the chemical constitution of the bile, on leaving the liver it contains only about 2.5 per cent. of solid matter, while under normal conditions the gall-bladder absorbs a large proportion of the water, at the same time excreting mucus, pseudomucus and cholesterin, thus raising the solid matter to about 18 per cent. From this it would appear that nature had provided a very efficient preventive to excessive quantity of bile producing morbid conditions.

Deficiency of bile, often described as "torpor of the liver," is a much more common con-

dition, producing morbid processes, which the physician meets almost daily in general practice.

The function of the bile is both excretive and secretive and consequently, if the formation is insufficient, two conditions will result, failure of excretion will embarrass the liver and failure of secretion will affect the digestion and absorption from the intestine, more especially the absorption of fats. It is certain also that at the same time vitiation of the bile formed also takes place. The active principles of the bile are the bile salts, glycocholate and taurocholate of soda, which hold in solution the excretory products, the cholesterin and coloring matters. Crofton has recently shown that glycocholic acid can be formed by the action of trypsin upon hemoglobin in the presence of glycogen or glucose, and suggests that the bile salts are formed in the liver by the action of trypsin or a trypsin-like ferment upon the hemoglobin in the presence of glycogen. That the bile acids are of special importance is shown by their being reabsorbed from the intestine, so as to be reutilized in the excretion of bile. Prevost and Binét, Rosenberg, Lewaschaut, Nissen, Rutherford, Noel Paton, Pfeiffer, and many others, have shown that the so-called cholagogues of the pharmacopœia do not increase the quantity of bile, though salicylic acid and turpentine appear to have some slight effect, and further that the bile acids are the only drugs which will increase the quantity of excretion.

Gall-stones are of very great frequency, often producing very severe symptoms. Kehr's statistics show that ten per cent. of adult persons in Germany are so afflicted, in England about five per cent., and judging from the Johns Hopkins autopsy reports about 7½ per cent. in this country. In many cases no doubt, the gall-stones lie dormant in the bladder and give rise to little or no trouble, but a proportion of cases suffer from remittant hepatic colic and others from occlusion of the gall-duct, causing very serious results. Heredity is said to be an etiological factor in the formation of gall-stones but apparently on insufficient grounds. They have been occasionally found in the new-born, 2.4 per cent. of the cases occur under twenty, 3.2 per cent. between twenty and thirty, 11.5 per cent. between thirty and forty, 11.1 per cent. between forty and fifty, 19.9 per cent. between fifty and sixty, and 25.2 per cent. over sixty years of age; they may be said to occur in one out of every four persons over sixty, due to the increased formation of cholesterin and the decreased expulsive power of the gall-bladder. Diet is said to be a cause. Mayo Robson and Brockbank regard a supply of nitrogenous food as a preventive, arguing that the bile acids are formed from proteid. In opposition to this theory is the extreme rarity of the disease in India, where the people are vegetarians; from Crofton's experiments it would appear that carbohydrate which produces glycogen is at least as important as nitrogenous food. Water containing lime has been accused because the calcium salts of bilirubin are the principal con-

tents of a form of stones. But the addition of lime water to bile in quantities does not precipitate bilirubinate of calcium, provided there is a sufficient quantity of glycocholate of soda to hold it in solution; nor has it been proved that gall-stones are more frequent in districts where the drinking-water contains a quantity of lime salts; and further, the Carlsbad waters which have admittedly a curative effect upon gall-stones contain a considerable quantity of lime.

One cause of gall-stones no doubt, is stagnation of the bile in the gall-bladder, especially when there happens to be an infection. The bile under these conditions becomes thick, viscid and ropy. Solids are formed, which, acting as foreign bodies, become coated with either cholesteroline or bilirubin salts. It is not improbable that in many cases the nucleus of the stone is mucus as the hollow in the center of the stone is usually empty, though in a certain number of cases it contains the *Bacillus coli communis* or the *Bacillus typhosus*. It is obvious, however, that if there was a sufficient quantity of glycocholate of soda and of water the precipitation of cholesterolin or calcium salts could not take place.

There seems to be some connection between worry, excitement, anger, etc., and the secretion of bile as well as its elimination; anger and fear have been the immediate cause of an attack of jaundice. A dog, in the writer's possession, fought for some time with its companion shortly after eating, and in a few hours developed a severe attack of jaundice. It is well known to greyhound trainers that if the dogs take violent exercise after eating they are apt to develop jaundice. The pathology of this appears to be that the gall-bladder is full, awaiting the passage of the food from the stomach, and that the violent exercise forces the gall back into the liver and thence by the lymphatics into the blood.

In melancholia gall-stones are the rule, in mania they are practically unknown. Out of 243 autopsies there was not a single case of gall-stone in maniacal cases, while in the melancholic cases all had a pathological condition of the gall-bladder and in the large majority of cases gall-stones were present.

It is curious that gall-stones may remain in the gall-bladder for years without migrating into the duct or causing any trouble; as a rule the attacks occur at night and are preceded by severe pain in the lumbar region, probably in many cases brought on by distention of the gall-bladder, which causes nature to make an extra effort at expulsion. If the patient had taken a supper before retiring the gall-bladder would not have become so distended, having emptied itself by the normal stimulation of food. Stoop-ing for any length of time also appears to bring on an attack.

Besides hepatic colic, gall-stones seem to have some connection with primary cancer of the gall-bladder; also they may set up an inflammation which ends in a fistula usually into duodenum or colon or through the diaphragm, in the latter

case causing the patient to expectorate bile. Many nervous symptoms are produced by the heavy dragging sensation produced by a distended gall-bladder with stone which, if not recognized, causes the patient to be classed as a hypochondriac and to lose the sympathy both of his physician and friends.

Pregnancy and tight-lacing probably account for the greater number of gall-stone cases among women than among men, the proportion being stated as five to one. Pregnancy cannot be avoided, but tight-lacing can and should be condemned by the physician; both probably cause a reduction of the action of the diaphragm, free action of which materially helps to empty the gall-bladder.

In the treatment of gall-stone the surgeon seems to have usurped the place of the physician, the latter seeming to acquiesce without an effort. But the operation is dangerous and often has to be repeated; in the most simple form of operation, opening up the gall-bladder and evacuating the stones, etc., the mortality is probably a little over one per cent., but this operation is no guarantee against the return of the trouble, nor does there seem to be any reason why it should, the cause of the difficulty being the precipitation of cholesterolin and pigment salts, and emptying the bladder cannot possibly affect a pathological chemical condition. Kehr performed 409 operations on 353 patients showing that one in fifty had to be operated upon more than once. In the more elaborate operations the mortality is from five to 25 per cent. The operation is therefore a very serious one and should not be recommended except under very severe conditions.

Typhoid fever, influenza, malaria and many other diseases are associated with a torpid condition of the liver in which the conjunctiva becomes slightly yellow, especially after any extra fatigue, the skin is of a dirty, yellowish hue and the general appearance is that of a pseudo-jaundice, the patient suffering from want of energy and mental depression. In these cases bile pigment will usually be found in the urine, not perhaps in a sufficient quantity for Gmelin's test, but by diluting tincture iodine with ten volumes of alcohol, using it as a layer test, at the junction of the two fluids there will be a faint or deep-green ring according to the amount of pigment present. Bunge, in his recent work, states that every form of jaundice is due to obstruction of the flow of bile and that so long as there is an unimpaired flow of bile into the intestine there can be no bile pigment in the urine; it follows therefore, that should bile pigment be found in the urine, even in very small quantities, the therapeutic efforts of the physician should be directed to the elimination of bile. On physical examination the liver will be found to be more or less enlarged while on inquiry it will be found that there is a distaste for fat on the part of the patient due to a probable malassimilation. Such a condition predisposes to the formation of gall-stones as well as to chronic constipation.

The treatment of this condition should have for its object the increase of the quantity of bile, and also of the glycocholate of soda, in order to hold the excretory components of the bile in solution and at the same time stimulate the gall-bladder to empty itself as often as possible so as to prevent stagnation.

To obtain these results a purge of calomel and soda should be given occasionally to relieve the intestine of undigested food and possible toxins which may accumulate, at the same time the patient should drink a large tumblerful of water containing five grains of sodium bicarbonate about half an hour before meals and an injection of a liter of normal salt solution every other day, well up into the colon, will be of great assistance. To increase the solvent powers of the bile, five-grain capsules of glycocholate of soda (Hynson and Westcott, of Baltimore) three times a day after meals will have the desired effect; in cases where stone is already present or suspected, the dose may be raised to ten grains. This drug occasionally causes nausea for the first day or two, which passes off if the patient continues the treatment.

The diet should be abundant, consisting principally of carbohydrates, but not excluding meats; the meals should be taken at regular hours, the last about an hour before retiring.

Exercise is an important aid, as the free and full action of the diaphragm materially assists the gall-bladder to empty itself, but if gall-stones are present it must be used with discretion.

Many of the pains radiating from the region of the gall-bladder are due to adhesions which can only be relieved by operation, for as the adhesions interfere with the contractions of the gall-bladder, they have a tendency to cause stone formation; in these cases, therefore, an operation is indicated.

Chronic constipation is often caused by torpid liver and by insufficient excretion of bile; in such cases the treatment just described will be found to give relief. It seems probable that by the administration of glycocholate of soda between the acute attacks of hepatic colic, not only will the formation of stones be prevented, but those already formed will be dissolved, preventing the recurrence of the attack. During the acute attacks, or when there is complete occlusion of the gall-duct, shown by alcoholic stools, the bile salts are not only not indicated but contraindicated, it being evident that to increase the quantity of bile at such times would increase the jaundice, but if the gall-duct is open, and especially, if bile pigment is present in the urine, the treatment here outlined is indicated.

Resuscitation Experiments.—A preliminary note on a method of resuscitation is published by G. W. CRILE (Cleveland Med. Jour., Jan., 1903). By the combined use of intravenous infusions of adrenalin, artificial respiration and rhythmic pressure on the thorax over the heart, animals "dead" as long as fifteen minutes were restored to life. Animals decapitated were made to live 10½ hours.

THE TREATMENT OF TUBERCULOSIS.

BY CHARLES WILLIAM HEITZMAN, M.D.,

OF ST. LOUIS, MISSOURI;

FORMERLY LECTURER ON HYGIENE IN THE DENVER COLLEGE OF MEDICINE.

THE appalling proportion to which the figures of mortality have been raised by the ravages of tuberculosis, each moment brings the question of treatment before us in the most imperious manner, while new remedies are becoming more numerous every day. What therefore should be the basis for the treatment of this disease at the present time? Tuberculosis like all other communicable diseases presents two factors for consideration: the causative agent whose biological and morphological characteristics are well known to us, and secondly the individual in whom this agent is present, whether by an inherited predisposition or acquired, in other words the patient under treatment.

All rational medication to be complete and truly efficacious should be directed toward these two factors, and should take into consideration all the elements presented in a given case. In considering the newer remedies employed in the treatment of tuberculosis we find that all possess some real value, but are unfortunately only directed toward some special phenomenon of the disease, and not against the entirety of the elements, that are to be combated. It is insufficient for a remedy to simply fit peculiar indications, for in this way it does not respond to the purpose for which it is put forth. Among the remedies offered we find one class that is intended to ameliorate the symptoms and thus restore the patient, by increasing tissue resistance and thereby limiting the invasion of the germ. The other class are intended to have a specific action: they are bactericidal or antitoxins. The rational method of treatment, however is one that possesses at the same time a combination of the foregoing.

That is to say, it should proceed from both a dynamical and from a specific point of view. Usually new remedies for the treatment of tuberculosis assuring an immediate, radical and absolute cure for this terrible malady are exploited and accepted without sufficient thought being given to the causative agent and its toxins or to the individual in whom they are engrafted. We must strive to counteract this tendency and school ourselves to conduct our minds into the paths of truth and sound appreciation of the remedies so offered. Here for example we have an anemic subject; the bacillus of Koch has invaded his tissues, remaining as yet in a latent stage. If this subject does not get some sort of treatment the anemia will be emphasized, digestive activity will diminish, strength will disappear, assimilation will be reduced to the minimum, there will be absolutely a failure of the entire organism. What must be done for this patient? First and foremost renew the organization by favoring nutrition. It is here that medication directed to produce these effects enters into play—hygienic medication, notably arsenic in its most assimilable form, soda

cacodylate, also iodine, cod-liver oil, etc. Thus the bacilli will be kept in check, their action neutralized and while the equilibrium between resistance and forfeiture is maintained our subject will live. But an organization already affected must pay a large tribute to a multiplicity of causes, such as physiological decline, worry, repeated attacks from bronchitis, influenza, rubella, scarlatina, etc., and there comes a fatal moment when the bacillus will triumph, so that the treatment directed toward the subject alone, although it appears efficacious, has only an ephemeral action. It is deficient, for it does not attack the essence of the evil—the bacillus or its toxic products. These facts are true of all methods which simply act on special phenomena of tuberculosis. In the first place, preeminently, we consider *hygienic treatment the base*, the indispensable adjuvant of all medication, without it we cannot make permanent progress and finally become stranded. The simplest manner in which the hygienic ideal is to be realized is in the construction of home sanatoria, that is cottages arranged in villas and in suitable sunny climates. Here, in fact here alone, can be obtained not only that hygienic condition, but the perfect moral state of the individual so essential for the successful treatment of tuberculosis. In these villas should also be constructed a larger building of many rooms according to the population, and this reserved for the sick who are incapable of governing themselves, the impulsive and the headstrong. These require constant personal supervision. Under these conditions the medical remedies, notably the arsenicals, will give good results in the lymphatics. It seems to act in these cases as an anemic, chlorotic, and in those with enlarged veritable spur to the organism increasing the appetite and hastening lymphatic dissolution. On the contrary the results in ulcerous or cavernous tuberculosis are nil. Soda cacodylate should remain in the therapeutic arsenal, as it meets all the indications of arsenic and in this shape is more assimilable and easy of administration. It is especially indicated in those predisposed to tuberculosis, those born tuberculizable, and in incipient cases of this malady. The foregoing remarks also apply to certain artificial serums which have been recently extolled, they also belong to the class of reconstructants, as they are entirely lacking in bactericidal or antitoxic power. Natural serums are to be preferred if for no other reason than that the same therapeutic effect can be obtained by one-third the dose of artificial serum required. This is due no doubt to the intimate composition of the natural serum. Following the favorable results obtained by feeding dogs suffering from tuberculosis on raw meat, quite an impetus was at one time given to this method of treatment. But it was tried in the usual manner, entire dependence placed in the meat or the juice expressed therefrom, and, so far as I can learn, for a short time only. The usual verdict was given—inefficient.

Experimental research demonstrated that this meat juice did not act as a nutrient but as an antitoxin, that this antitoxin would neutralize in the system the effects of the tubercular toxins. Undoubtedly there is virtue in the meat juice treatment conducted under favorable auspices. It must be remembered that meat juice becomes quickly tainted and rapidly toxic. The use of antituberculin recalls what once promised to be a popular form of treatment, that is the use of a serum manufactured from the blood of the so-called refractory (to tuberculosis) animals. It has been claimed that the blood of certain animals confers immunity against tuberculosis and may even cure it. This hemato-therapy may yet solve the problem of the cure of tuberculosis. In selecting treatment we must not fail to distinguish between tuberculosis and phthisis. A phthisical patient is one in whom the bacillus of Koch, after having begun its progressive march, causes the suppurative destruction of the invaded cells, and in this destroyed mass are encountered staphylococci, streptococci and pneumococci, destroying tissue with a rapidity equal to that of the bacillus of Koch. This is where hectic fever causes death; this is consumption. If by some magic power we should be enabled to destroy the tubercle bacillus our patient would nevertheless succumb to the mixed infection. In these cases a remedy that is at once dynamical and bactericidal would effect a cure. Tuberculosis is a malady in which the bacillar agent acts as a destructive force, but it is equally aided by other destructive forces provoked by other causes, as anemia, influenza, etc. Now, after setting forth these generalities, what properties are demanded of a therapeutic agent arrayed against this bacillus? We admit the reconstructing, regenerating properties of the general tonic remedies, cacodylates, lime phosphites, cod-liver-oil, etc.; we even admit the antitoxic properties of meat juice, but are we justified in saying that each of these agents fulfils the double purpose which we seek to assure the cure of tuberculosis? No, they are either simple reconstructants or antitoxins. Observation proves that all serums are dynamogenic in their action and consequently general reconstructants. We see this demonstrated every day in the employment of artificial serum (saline solution) in cases of serious hemorrhage or in traumatic shock following an operation. This dynamogenic action is fully recognized. Therefore it seems that the treatment of tuberculosis, par excellence, lies in the use of a serum possessing in a marked degree both dynamical and bactericidal powers coupled with climatic hygiene.

Second International Congress of the Medical Press.—This Congress will be held in Madrid, April 20 to 22; the Congress of Medicine to follow April 25 to 30. The same facilities as to lodging, traveling expenses, etc., will be afforded those attending this congress, as to members of the Medical Congress. Full particulars may be obtained by addressing Dr. Larra Cerezo, 17, Leganitos, Madrid.

A CONTRIBUTION TO THE SURGERY OF THE INTERNAL SAPHENOUS VEIN.

BY WILLIAM FRANCIS CAMPBELL, M.D.,
OF BROOKLYN, N. Y.;

PROFESSOR ANATOMY, LONG ISLAND COLLEGE HOSPITAL; SURGEON
TO WILLIAMSBURG HOSPITAL; ASSISTANT SURGEON
TO ST. JOHN'S, KINGS COUNTY AND LONG
ISLAND COLLEGE HOSPITALS.

THE simple procedure of ligating the internal saphenous vein high up in Scarpa's space for varicosities occurring along the course of the vein has become widely popular during the last few years. Its popularity is undoubtedly due to its simplicity, and as a rule its efficacy.

The operation is easily performed with cocaine anesthesia. The vein is readily accessible, and is usually found through an incision of an inch or an inch and a half. The fact, however, that occasionally the varicose condition did not improve after this procedure and again the annoying and tedious delays which the author has experienced and witnessed in others in exposing the vein for ligation led him to investigate the anatomy of the internal saphenous vein with two objects in view: (1) to discover the possible sources of error which might occur in practicing the operation as now taught; (2) to devise, if possible, some guide or landmark which would fix a point at which the vein could be exposed and ligated without possibility of error.

The experiments were performed on 50 subjects, and in detail were as follows: (1) the operation, as now performed, was done on each subject as a preliminary procedure; (2) the skin was reflected back, the vein and its branches exposed, and observations made upon the result of the preliminary ligation; (3) the point at which the vein should be ligated was fixed and its relations to surrounding landmarks observed.

The results obtained were rather interesting.

First, regarding the preliminary ligation: As usually performed, the author succeeded in ligating the vein at the proper point in 70 per cent. of the ligations, the other 30 per cent. were distributed between the internal femoral cutaneous, the external femoral cutaneous, the internal saphenous vein below these two branches, and in one instance there was a double internal saphenous vein, one lying above the other and forming the main trunk about one-half inch below the saphenous opening.

The greatest source of error lies in the internal femoral cutaneous. Twenty per cent. of the errors were found here. As McClelland observes: "Many of the tributaries of the internal saphenous are as large as the vein itself, especially on the inner side of the thigh."

In six per cent. of the cases the vein was ligated below the femoral branches. The external femoral cutaneous was ligated once, and the anterior portion of the internal saphenous once when it occurred as a double vein, one portion lying above the other. In observing the relation of the line of incision to these errors it was found that the usual incision is too low down and too far toward the inner aspect of the thigh. My pre-

liminary incisions averaged an inch too low and too far in.

It will be readily seen that the proper point at which to ligate is that portion of the vein which lies between its last tributary and the saphenous opening.

This space is about three-quarters of an inch in length, varying somewhat in different subjects. A circle about the size of a five-cent piece ought to fix the limits within which we can expose this portion of the vessel.

The author found that the end of a line $3\frac{1}{2}$ inches long projected from the spine of the pubes at right angles to Poupart's ligament would always fall within this circle. The utility of this guide has been demonstrated by the author and others in a number of cases, and has proved efficient in every case.

The following procedure is recommended: Find the spine of the pubes. From this point project a line $3\frac{1}{2}$ inches long at right angles to Poupart's ligament. The end of this line marks the point for the center of the incision which should be about one inch long and parallel with the fold of the groin. In retracting the edges of the incision, retract the upper edge so as to ligate as near the saphenous opening as possible.

EMPHYEMA OF THE ACCESSORY SINUSES OF THE NOSE.*

BY J. H. WOODWARD, B.S., M.D.,
OF NEW YORK.

EMPHYEMA of the accessory sinuses of the nose is a condition so far-reaching in all its ramifications that the time at my disposal will permit only of a very brief outline of its salient characteristics. I am sorry to say, at the very outset, that it is unavoidably imperative that I should enter upon a short résumé of the essential surgical anatomy of the regions under discussion.

If one were to ask what are the accessory sinuses of the nose, I suppose that a majority of us would reply that they are the maxillary, the frontal, and the sphenoidal sinuses. It should be remembered, however, that the air cells of the ethmoid, constituting the ethmoidal labyrinth, are inseparably associated with those cavities anatomically, physiologically, and pathologically; and that, clinically, they must be regarded as essential components of the sinus-system of the upper respiratory tract. So important is the rôle they play in pyogenic inflammation in these regions that failure to appreciate their intimate association with the adjacent air spaces, and their vulnerable exposure to infections, must pervert our comprehension of the conditions that induce and the causes that prolong nasal pyorrhea.

The ethmoid cells are naturally divided into two sets: an anterior group and a posterior group. The former are closely associated with the frontal and the maxillary sinuses, and their orifices discharge anteriorly into the middle meatus. The

* Read before the Society of the Alumni of Bellevue Hospital, December 3, 1902.

posterior group are contiguous to the sphenoidal sinuses and discharge posteriorly into the superior meatus and the spheno-ethmoidal recess. As a rule, in health, no direct communication exists between the anterior and the posterior ethmoid cells.

Ethmoid cells often extend into the roof of the orbit, beneath the floor of the frontal sinus. They are found also in the orbital roof altogether behind the frontal sinus. Such cells frequently extend backward as far as the apex of the orbit. Ethmoid cells are found also beneath the floor of the orbit, between that cavity and the maxillary antrum.

Manifestly, the ethmoidal labyrinth is an extensive series of air cells, separated by thin barriers from the anterior cranial fossa, the orbital cavity, and the maxillary antrum. Obstruction of their ostia from any cause may readily give rise to symptoms of pressure, and, under favoring pathological conditions, result in manifold disaster.

The frontal sinuses begin to develop at the end of the first year and may be recognized as distinct air cells above the naso-frontal suture from the sixth to the eighth year. It may be assumed that they attain their full development by the thirtieth year, although it is known that their size increases in old age, probably by virtue of shrinking and absorption of contiguous parts. The frontal sinuses are two in number and bilateral. In certain crania, however, one sinus only is present; and, in more exceptional instances, the frontal sinuses are wanting altogether. Turner* found, in 240 European crania, both frontal sinuses present in 199, the right sinus absent in nine, the left sinus absent in 14, and both sinuses absent in 18. His investigations indicated, moreover, that absence of one or both sinuses was more commonly observed in the female than in the male.

Normally, the frontal sinuses are separated from one another by a complete bony septum, which may be perforated by disease. Turner* examined 355 skulls with especial reference to the position of the septum. In 277, he found it in the mesial plane. In 78 crania the septum deviated, in 47 to the right, and in 31 to the left. In all, excepting 13 crania, the lower end of the septum was mesial. In these 13 instances, the lower end deviated to the right eight times, and to the left five times, and the extent of the deviations varied from two to nine mm.

The size of the frontal sinuses varies considerably. The smallest measured by Turner was 18 mm. high, 13 mm. broad, and 5 mm. deep. The largest one measured by him was 45 mm. high, 60 mm. broad and 25 mm. deep. A frontal sinus may extend backward to the apex of the orbit and laterally to the external angular process. The frontal sinuses discharge into the middle meatus through the fronto-nasal duct, or by way of the infundibulum. The ostium is found near the median plane in the most dependent part of the

sinus, and it is always present. Its caliber varies from four to eight mm.

Partitions, subdividing the frontal sinuses into several more or less complete chambers, are too commonly observed to be neglected. The frontal sinuses are separated from the anterior cranial fossæ, the orbital cavities, and the anterior ethmoid cells by thin walls of bone. By erosion of those walls and direct transmission, or by way of the pores in the bone, or the lymphatics, or the blood vessels, pyogenic infection may travel from the frontal sinuses to the intra-cranial contents, to the intra-orbital structures and to the ethmoid cells.

Known variations in the size of the frontal sinuses and in the position of the septum impose upon us the obligation of a sure guide to their position, whenever the question of operative interference arises. Almost without exception, when they exist at all, the frontal sinuses will be found immediately underneath the triangles constructed as follows: Connect the supra-orbital foramina or notches by a horizontal line, drop from its mid-point a vertical to the fronto-nasal suture, and complete the triangles by lines drawn from the naso-frontal end of the latter to each respective supra-orbital foramen. Thus two triangles are constructed above the root of the nose, through which even the smallest sinus may be opened. The anterior wall of the sinus may be eight mm. in thickness, although, as a rule, it is very much thinner. In operating through the anterior wall of the sinus, our course should be directly backward. If, however, we have traversed in this direction eight mm. of bone without opening the sinus, it would be wise to change the course of the excavation to downward, backward, and inward, toward the uvula. Thus, opening the anterior cranial fossa may be avoided, while our explorations would expose even the smallest sinus, or, in the absence of the sinus, open into the anterior ethmoid cells.

Properly speaking, the maxillary antrum does not exist at birth. It attains its fullest development about the thirtieth year, and in the different crania great variations in its size are noted. It discharges, usually through a single ostium, into the middle meatus near the junction of the middle and posterior thirds of the inferior turbinated bone. This orifice is found in the upper portion of the inner wall of the sinus, underneath the roof; and, evidently, it is not designed for drainage of the cavity. It is so situated that pus from the frontal sinus, and the anterior ethmoid cells, may readily pass through it into the antrum—a condition that is not uncommonly observed in practice. The infra-orbital nerve traverses the roof of the maxillary antrum, usually through a canal in the bone. In certain crania, however, the nerve is not so protected, and it may be wounded during curettage of the sinus, unless proper caution be observed.

Like the frontal sinus, the maxillary antrum may be subdivided into two or more additional cells by partitions that are more or less com-

* "The Accessory Sinuses of the Nose," A. Logan Turner, 1901.

plete. However large or small the antrum may be, it is almost invariably situated immediately above the first molar tooth.

The sphenoidal sinuses, usually two in number, separated from one another by a mesial septum, are located in the body of the bone and open into the superior meatus and posterior ethmoidal recess, by an ostium in the upper portion of the anterior wall. This orifice also is not properly located for drainage. There may be a single cavity representing the sphenoidal sinuses, or the sinus may be absent altogether. In certain crania, air cells exist in the wings of the sphenoid. The entire system of accessory sinuses is lined by a thin mucous membrane, having mucous glands and ciliated epithelium.

Inflammation of the accessory sinuses may be either primary or secondary, acute or chronic. The greater number of cases are secondary to some intra-nasal condition. Many acute cases terminate in complete resolution, even though the inflammation may have been pyogenic in character from the outset. Others become chronic; and it is probable that the greater number of chronic pyogenic inflammations in these regions begin as an acute infection. The exanthemata, diphtheria, acute coryza, trauma, and especially, influenza, are the causative factors of nearly all cases. Exception should be made, however, of pyogenic inflammation in the maxillary antrum, for it is most commonly due to extensive caries of the teeth.

The maxillary and the frontal sinuses are most commonly infected, the former taking precedence of the latter. Very often two or more sinuses are involved. Infection of the maxillary sinus may extend to the frontal sinus of the same side. More frequently, however, pus from the frontal sinus gravitates into and infects the subjacent maxillary sinus. Whenever the frontal sinuses are the seat of pyogenic inflammation, the existence of a similar condition in the anterior ethmoid cells should always be anticipated. In a certain number of cases, all of the accessory sinuses of the nose are involved in the pyogenic inflammation, either simultaneously, or in sequence.

Perhaps the most universal subjective symptom observed in pyogenic inflammation in these regions is pain. The pain varies in intensity from a dull, uncomfortable sensation of pressure and fullness in the region of the inflammation to excruciating and almost unbearable neuralgia. The pain may be continuous, or there may be remissions, alternating with acute exacerbations of a distinct periodic character. The periodicity may be so marked as to lead one to erroneously diagnose malarial poisoning.

In maxillary sinusitis, the pain is usually located beneath the orbit; in ethmoid disease it is in the frontal region and behind the eyeball; in sphenoidal sinusitis it is deeply seated behind the eyeball, or in the vertex, or in the occiput. There are variations from these rules, however, the best known being those of maxillary sinusitis in which the pain is chiefly frontal, and those of frontal

sinusitis in which the site of the pain is much lower down than one would expect to find it.

Tenderness on pressure over the affected sinus is generally present. In maxillary sinusitis, a certain degree of deafness on the same side and tinnitus aurium are often noted. The patient may complain of an offensive odor in his breath, which he alone may detect, although, in chronic maxillary empyema the observer may be able to distinguish the offensive odor.

The objective symptoms are those of a more or less intense rhinitis and a purulent discharge from the nose, which also varies much in amount. Nasal pyorrhea may be profuse, necessitating frequent blowing of the nose and expectoration, to such a degree that the patient is disgusting to himself and offensive to others. When the maxillary sinus is involved, pus appears in the middle meatus two-thirds of the way back from the anterior extremity of the inferior turbinate, at the site of the natural opening into the cavity. If the discharge be profuse, it will have spread pretty well over the lower part of the nasal chambers. In such instances, the nose may be cleansed by syringing or spraying, after which the patient may hold his head in such position that the ostium of the suspected sinus may be low enough to allow pus to gravitate through it. If then pus appear well back in the middle meatus, its source may be divined with considerable accuracy.

Pus from the frontal sinuses and anterior ethmoid cells appears high up in the anterior portion of the middle meatus between the middle turbinate and the external wall of the meatus, flowing forward and downward; and it is seen also, with the rhinoscopic mirror, flowing backward through the middle meatus toward the throat, concealed from anterior inspection by the middle turbinate bone.

Pus from the posterior ethmoid cells and the sphenoid sinus may be discovered by rhinoscopic examination in the superior meatus flowing backward toward the throat.

Transillumination of the maxillary and the frontal sinuses by the electric light was added to our measures for diagnosing empyema in those cavities by Heryng. Transillumination of the ethmoid cells and the sphenoid sinus is not practicable. Under no circumstances, however, may we rely entirely upon the findings of transillumination. It is a valuable adjuvant to other means of diagnosis, and one that should never be omitted in the study of maxillary and frontal sinusitis.

Edema of the cheek and about the eye and forehead, and inflammatory swellings in those regions are observed in certain cases of antral and frontal sinus suppurations. Congestion, or inflammation of the conjunctiva, photophobia, exophthalmos, and, in occasional serious cases, phlegmon of the orbit, and irritation or inflammation of the retrobulbar section of the optic nerve, have been observed in chronic empyema of the accessory sinuses, including the maxillary. In a small percentage of cases, meningitis and cerebral abscess

have added their symptomatology to the clinical picture. The usual symptoms of a more or less intense septic invasion of the general system are observed, especially in the more aggravated cases.

Occurrence of the disturbances that have been mentioned may be very properly ascribed entirely to the existence of empyema in one or more of the accessory sinuses of the upper respiratory tract. Nevertheless, it is important to recollect that purulent inflammation may exist in those cavities without exciting any of them. It is difficult to conceive that a purulent discharge from the nose may be absent under such circumstances; but it is a fact that its existence has not been noted in certain demonstrated instances of purulent sinusitis. These are anomalous cases. The patients perished of some other malady and the unsuspected sinus disease was discovered at the autopsy.

The natural course of acute inflammation of the accessory sinuses is toward complete and permanent recovery. Chronic sinusitis on the other hand, is always a process that runs a protracted course without manifesting any tendency toward spontaneous cure. The behavior of both acute and chronic cases will be influenced materially by the degree of patulency of the orifices of the various sinuses. When they are obstructed by inflammatory swelling, by intra-nasal growths or deformities, and exit through them of the products of inflammation is seriously impeded, we may anticipate a proportionate aggravation of the symptoms and the danger to life, and disappearance of any tendency toward amelioration of the pyogenic process.

Pyogenic infections of the frontal sinuses and the ethmoid labyrinth are more dangerous to life than similar infections in the sphenoidal or the maxillary sinuses, for anatomical reasons that have been mentioned already.

In general, the treatment of acute cases may be restricted to measures that combat the disease upon which they depend, and to intra-nasal remedies that diminish congestive obstruction in the nose. Our aim must be to restore patulency to the natural ostia of the sinuses, in order that retention of discharge in them may not take place. In acute inflammations it may be attained by the use of mild alkaline sprays containing adrenalin, and perhaps a little cocaine, together with steam inhalations containing menthol or compound tincture of benzoin. Very hot compresses, or ice bags over the frontal and maxillary sinuses may be useful. In acute maxillary sinusitis resulting from disease of the teeth, the alveolar abscess must be evacuated and the diseased teeth extracted at the outset. For some reason, incomprehensible to me, dentists object to removal of ulcerated teeth during the stage of acute inflammation. Whatever they may say about it, in acute maxillary sinusitis of dental origin, the offending teeth must be extracted early. If amelioration of the symptoms be not detected within a week or ten days after beginning the above outlined treatment of acute sinusitis, we may resort to the more

radical measures, which are always indicated in chronic empyema.

Whatever may have been the cause of chronic empyema of a maxillary sinus, the surgical indications for treatment are twofold, namely drainage and disinfection. If disinfection has been thorough and permanent, temporary provision only need be made for drainage. But failure to secure such disinfection will impose upon us the necessity of preparing a way for the escape of the sinus contents during an indefinite period. To my mind the most efficient means at our command for disinfecting the accessory sinuses is curettage, followed by liberal lavage with some sterile and moderately antiseptic fluid like saturated solution of boric acid, and finally, in bad cases, by an application of pure carbolic acid. (It is not necessary to neutralize the carbolic with alcohol.)

In order that we may use the curette effectively in the maxillary antrum, we must approach that cavity by another route than the intra-nasal, or the alveolar. In fact, the sinus must be entered through a sufficiently large opening in the anterior wall, within or external to the canine fossa. Many cases of empyema of the antrum of Highmore have been cured by draining and washing through an alveolar aperture. But it is demonstrable,* I think, that this method is not surgically the best, even when empyema is a consequence of dental caries and alveolar abscess; and that cases so managed require an unnecessarily prolonged supervision. Through the anterior wall of the sinus we may reach with ease every portion of its interior, and the wound in the soft parts under the upper lip will remain patulous a sufficient time for the necessary lavage and drainage. In my experience, it is not advisable to irrigate the antrum, even with the mildest solutions, for a longer period than four or five weeks subsequent to the operation. I am convinced that irrigation of these regions with irritating antiseptic solutions should never be practised. Should resolution be delayed after a month of this treatment, and especially, should pus formation in the antrum be marked still at the end of that period, a large opening for drainage may be made through the inner wall into the inferior meatus (Luc or Caldwell-Luc). Through this opening the sinus may be irrigated as circumstances require, and so long as it remains open, the possibility of accumulation of discharges in the antrum cannot exist.

In the management of chronic suppuration in the accessory sinuses, obstructions in the nose should be removed as a preliminary treatment. In frontal sinus and in ethmoid disease the anterior half of the middle turbinated bone should be excised with the cold snare, or cutting forceps. In sphenoid sinus disease, the entire middle turbinated may be removed to clear the intra-nasal approach to the sinus.

Direct treatment of the frontal sinus by the intra-nasal route is so delicate and so dangerous a procedure that it may not be recommended. In

* Lermoyez, *British Medical Journal*, August 30, 1902, p. 580.

any case of important suppuration in the frontal sinus, the safest and by far the most satisfactory approach will be found in an external operation. The chief objection to an external operation is that it leaves a scar in a conspicuous place; but that objection is more than counterbalanced by the advantages gained by such choice, and after all the deformity need not be marked.

The most reliable guide to the frontal sinuses has been given. My preference is to approach them through their anterior wall, because in that way we gain a much more unrestricted access to every part of the sinus than is possible by any other route. In frontal sinus cases, perfect curettage of every nook is essential, the greatest enlargement of the channel of communication with the nose compatible with safety must be secured, and the anterior ethmoid cells destroyed (Ogston-Luc). Injury to the pulley of the superior oblique muscle and consequent diplopia have arisen both from extension of the external wound too far backward along the roof of the orbit, and from too vigorous use of the curette upon the floor of the sinus. After such an accident, it is not possible to restore the ocular movements to normal, although the diplopia may be overcome by operations upon the eye muscles. Kuhnt's operation, designed to obliterate the frontal sinus by removal of the entire anterior wall and allowing the soft parts to attach themselves to the remaining walls of the cavity, is, in a considerable number of cases, an anatomical impossibility. Moreover, so striking is the resulting deformity that I would not select it in any case.

Suppuration in the ethmoid cells is attacked preferably by the intra-nasal route. The cells may be opened through the frontal sinus, and through the orbit; but these routes may be selected only when there is either a complicating frontal sinusitis or orbital abscess, and even then the intra-nasal operation should still be performed. Careful search with a probe may reveal the site of the ostia of the anterior cells; but whether they are discovered or not, the cells may be opened safely by careful use of cutting forceps and curette. The anterior half of the middle turbinated having been removed, the anterior cells may be opened by working carefully in an outward and slightly upward direction, well below the fronto-nasal suture and about on a level with the palpebral slit. Having opened the anterior, the posterior cells may be easily approached and opened. The floor of the cells should be cut away as far as possible, and the remaining walls gently curetted. Whenever the infection has proven to be a persistent one, it will be advisable to paint the walls with pure carbolic acid from time to time, so long as a disposition to relapse is in evidence.

Empyema of a sphenoidal sinus yields to treatment conducted in accordance with the same general principles. The sphenoidal sinuses should be approached by the intra-nasal route, after removal of the middle turbinated bone. They have been attacked by way of the orbit and through

the maxillary antrum; but, for obvious anatomical reasons, such operations are not recommended. Having located the ostium in the anterior wall, and having explored the sinus with a probe, sufficient bone may be cut away from the anterior wall with a punch forceps to provide free drainage of the sinus. Gentle curettage, and disinfection with carbolic acid may be required.

The results of treatment conducted in accordance with these specifications are satisfactory, although often it is not possible to check suppuration in the accessory sinuses. Complete eradication of pyogenic infection from them is one of the most difficult tasks in surgery.

58 West Fortieth Street.

A NEW SPUTUM SLIDE.

BY JAMES RAE ARNEILL, M.D.,

OF ANN ARBOR, MICH.;

INSTRUCTOR IN CLINICAL MEDICINE IN THE UNIVERSITY OF MICHIGAN.

Most laboratory workers, and especially those who make frequent examinations of tuberculous sputum, have long wished for a more cleanly method than that in vogue for the macroscopical and unstained microscopical low dry lens examination of sputum. The method in common use is the following: A glass plate, four by five inches, and an ordinary microscopical slide are needed. The sputum, or a small amount of it, is placed upon the glass plate, and by means of the slide, which is held between the thumb and index finger, is pressed out into a thin layer. A search is now made for suspicious grayish-yellow spots. These may be bits of food, bits of pus or epitheli-



um, small masses of germs such as lepto-thrix buccalis, or pieces of elastic tissue. The experienced worker soon learns to distinguish, with a fair degree of certainty, between bits of food and elastic tissue. However, he makes certain by transferring the plate to the stage of the microscope and examining the specimen with the low dry lens, most of the light being shut off. This is the quickest and easiest means of recognizing elastic tissue. It is unnecessary to argue the importance of this finding.

The only drawback to this method is that the microscopical slide is so small, and in such intimate contact with the glass plate through most of its surface, that when the sputum is pressed out, it runs along the under edge of the

slide and is likely to smear the examiner's fingers. This feature makes the examination of tuberculosis sputum repulsive and dangerous. In the subsequent cleaning of plate and slide one is also liable to get sputum on the fingers.

To overcome this difficulty and to make it possible to examine a larger amount of sputum at once, I have devised the following simple, easily made slide.

From an ordinary thin window pane, by means of a glass cutter's steel, slides 5 in. long by $1\frac{3}{8}$ in. wide are cut. (The dimensions may be varied as desired.) One end of such a slide is slowly heated in the blast, then bent to furnish a handle as indicated in the cut, and allowed to cool slowly. If the cooling is too rapid it is likely to crack. A little experience is necessary to make these slides successfully. By means of a file lubricated with sweet oil the sharp edges of the slide are rounded off. The raised handle keeps one's fingers from coming in contact with the sputum. The bent glass slide is also useful later in scraping the sputum from the glass plate.

The practical value of such a slide is daily demonstrated in the clinical laboratory of the University of Michigan. Manufactured by Bausch and Lomb Optical Co., Rochester, N. Y.

MEDICAL PROGRESS.

SURGERY.

Post-operative Ventral Hernia.—The many and varied methods of suture of the abdominal wall are in themselves positive proof that no really satisfactory single method of suture has yet been devised. Ventral hernia appears to follow the opening of the abdomen under any conditions in a certain number of cases. O. WOLFF (Cblatt f. Chir., Dec. 13, 1902) suggests the following as the cause. If the convalescence of each laparotomy is followed and a careful history is kept, it will be found probably true that in all cases of post-operative hernia the patient suffered during the first two or three days after the operation from meteorism, which in itself is sufficient to break down almost any method of suture. The various stitches are torn apart and the suture-line more or less opened by the enormous distention from the inflated intestines. The skin sutures for the most part appear intact, making the wound appear as if the union had been primary, whereas, in fact, the deep suture-lines are open. It would appear, therefore, that the avoidance of meteorism is the secret of really successful closure of the abdomen.

Beta-Eucaine, its Advantages Over Cocaine.—Although this subject has received already a great deal of consideration, it does not seem as yet to be thoroughly thrashed out. Dr. MARCINOWSKI of the Woltersdorfer Schleuse Sanatorium (Deut. Zeitsch. f. Chir., Oct., 1902), reports that in all minor-surgical work local anesthesia is much better obtained by means of this drug rather than cocaine or ethyl chloride. Some of the reasons for this conclusion are as follows: It is absolutely non-irritant unless too strong or incorrectly prepared, in other words, the solution must be isotonic with the body fluids and of the body temperature. It is 3.75 times less poisonous than cocaine or alpha-eucaine. The vaso-dilatation reaction is very moderate. In the eye, it is peculiarly useful, since it is neither myotic

nor mydriatic, nor has it any influence on the accommodation of the eye or in its reaction to the influence of light. The hyperemia which follows beta-eucaine injection is exceedingly desirable in ocular operations, as it favors healing, but this vascularity is not of sufficient extent to interfere with the most delicate differential diagnosis, such as cystoscopy. In suitable concentration and doses the anesthetic action of beta-eucaine is equal to that of cocaine. In eye surgery two per cent. is usually sufficient; in the urethra and bladder two ounces of this solution may be used. In the nose and throat a 10-per-cent. solution suffices and in dentistry from two-per-cent. to five-per-cent. One of the peculiar advantages of the beta-eucaine is that the solution keeps indefinitely because it can be repeatedly boiled without affecting it. In the light of these qualifications, it seems to the author that the occurrence of cocaine poisoning in any case where beta-eucaine might have been employed must expose the operator to the severest condemnation.

Immobilization in Pott's Disease.—As a result of long experience, V. P. GIBNEY (Arch. of Ped., Dec., 1902) looks upon appliances which require infrequent adjustment as the most serviceable method of treatment. Immobilization should be prolonged and "uninterrupted," that is, the jacket, if at long intervals removed for cleansing, etc., should be removed without disturbing the parts, the patient being partially suspended in the swing or in a horizontal position. A patient should never be allowed to sit or stand without support. To enlist home cooperation one may say "The back is broken for all practical purposes and it needs a long course of splinting." Great care should be taken to make a properly fitting jacket, and then it should be renewed only once or twice a year. Thus, by not requiring to have the jacket renewed frequently, the patient is free to leave for a more favorable climate, or, in the case of an adult, for his home or business. The author uses the Goldthwait or Tunstall Taylor's kyphotome, aiming to get a little recession of the deformity when the jacket is applied. He uses seamless, stockinette shirting made of Angora wool, and to this is sewn padding of Russian felt to cover the spine, the anterior superior spines and the free ribs. The greatest attention to detail is necessary in fitting a jacket, and if it fails to fit a new one should be applied at once.

Latent Retrocecal Abscess.—The chronicity of certain abdominal suppurative conditions, especially around the cecum, is well illustrated by a case reported by T. S. CULLEN (N. Y. Med. Jour., Dec. 27, 1902), who three years ago operated upon a boy with an acute appendicitis with abscess, since then he has been fairly well, but subsequent to a fall upon that side one year ago, he had severe pain lasting several days. Recently he fell again and has been confined to his bed with local pain, tenderness and moderate temperature. Incision disclosed an encapsulated abscess up behind the cecum filled with foul smelling pus which had evidently been there a long time. The appendix scar was perfect, but it was thought that a small pocket of pus had not been sufficiently drained at the time of the original operation.

Indications for Nephropexy.—Many surgeons have become rather enthusiastic over the results following the operation to anchor the kidney, but there has been considerable difference of opinion in regard to the indications which make this operation imperative or advisable. A. H. GOELER (Med. Rec., Dec. 20, 1902) makes the subject clear from his standpoint by saying that the indication for fixation of the kidney is prolapse to the third degree or beyond; that is, when the whole organ is found prolapsed below the last rib

in front. Even when there is apparent absence of symptoms or external evidence that the prolapse is causing disturbance, he still advocates operative interference because, he says, the kidney is in a crippled condition and symptoms will undoubtedly arise later. The three principal indications to be found for fixing the kidneys are: (1) The symptoms of inconvenience it produces, (2) the influence it may exert in producing or maintaining disease of the female pelvic organs, and (3) its influence in causing disease of the kidney itself. The most frequent and most distressing symptoms referable to this condition are those which point to derangements of the digestive apparatus and the genito-urinary organs, with fatigue and general depression following exertion of any kind in the erect position. These symptoms, it is claimed, should be relieved by operation before they become unbearable and lead to chronic invalidism. The interference with the pelvic organs, which is caused by a prolapsed kidney, is supposed to be due to pressure upon the ovarian veins by the misplaced organ, thus leading to various congestive disturbances. The most important indication for nephropexy, however, is the condition of the kidney itself produced by the prolapse. The function of the organ is interfered with, congestion produced and the outflow of urine is frequently retarded or obstructed. It is urged that such a condition, if it persists, must lead to inflammation or degeneration of the organ. The results of careful microscopical examinations of the urine in a large number of cases of prolapsed kidney show that there are evidences of irritation of the pelvis, ureter, and kidney substance in nearly all. The use of binders or corsets specially devised to support the kidney has seemed to prove efficient in the hands of some, but the general opinion is that they are by no means satisfactory. The danger from the operation of nephropexy is so slight that the possibility of a serious outcome may be with confidence almost entirely disregarded.

Extensive Intestinal Resections.—The rather limited literature bearing upon this subject is reviewed by G. FANTINO (*Rif. Med.*, Dec. 15, 16 and 17, 1902) and two previously-reported cases, in which he removed three meters of the small intestine, are discussed. In one case the result was perfectly successful, while in the other, death occurred within a month after the operation, from marasmus. The author finds an explanation of the unfortunate outcome in the latter case, in the supposition that the remainder of the intestine could not suddenly adjust itself to the additional work thrown upon it; while in the first case, abnormal conditions within the section of intestine removed, had led to a gradual development of supplementary power in the healthy portion, so that it was prepared to carry on the work alone after resection of the diseased part. A study of the work of other operators seems to indicate that, in selected cases, the removal of from one-third to one-half of the intestine is compatible with life and health, though in resections approaching the latter figure, the danger is much increased. There is some ground for the belief that the result is more apt to be successful when the resection is made in the first or second part of the intestine; though the author reports a case in which, owing to extensive adhesions rendering identification of the various parts of the intestine extremely difficult, he accidentally removed the entire colon together with a meter's length of the small intestine; and the patient survived in comparatively good health for nine months, and, in all probability, would have continued to live, had it not been for the fact that prolapse and strangulation of a good part of the intestine occurred through a fistulous opening in the abdo-

men, which had fulfilled the function of an artificial anus. In this case, a faulty anastomosis had brought about a circuitous passage of the substances within the bowel; thus necessitating their longer sojourn in the intestine. This accidental anomaly, the author believes, allowed more time for digestion in the remaining small intestine, and he suggests the possibility that future operations for the removal of the colon might be based upon this idea.

Surgical Treatment of Prostatic Hypertrophy.—This topic is fully discussed by R. MENOCAL (*Rev. de Med. y Cirugia de la Habana*, Dec. 10, 1902) who describes his experience with the Bottini operation and prostatectomy and comes to the conclusion that the Bottini is the most satisfactory, because of the rapid convalescence; an anesthetic is not always required; no danger of perineal urinary fistula. Besides all the advantages noted, the Bottini does not require such minute post-operative care nor does it expose the patients to secondary infections as does prostatectomy. He believes in cystoscopy before performing a perineal prostatectomy, on account of certain forms of hypertrophy of the median lobe which may be extirpated with ease by a suprapubic cystotomy and obtain the immediate relief of symptoms without resorting to a perineal incision.

Transverse Incision in Laparotomies.—This operation is described by I. PLASENCIA (*Rev. Méd. Cubana*, Dec. 1, 1902) who attributes his success with the transverse incision in a series of abdominal cases requiring laparotomy. He sums up the advantages of this procedure by saying that it gives a firmer cicatrix, thus preventing subsequent hernias, and is preferred by the patients on account of the esthetic effect, the pubic hair covering the incision subsequently. He incises both the skin, fascias and aponeuroses of the external oblique muscle a few centimeters below the upper boundary of the mons veneris. The rest of the operation is done by a vertical incision through the muscles, picking up the peritoneum and incising as is customary.

A Case of Cervical Rib.—The history of a case with this abnormality is reported briefly by R. MENOCAL (*Rev. de Med. y Cirugia de la Habana*, Nov. 25, 1902). A man, twenty-five years old, carpenter by occupation, with negative family and personal histories. At fourteen the patient noticed a small tumor in the supraclavicular region on the left side; since then had noticed it had gradually increased in size. About nine months previous to his present trouble had a sudden pain over the left side of the neck, attended with nervous excitement. These phenomena repeated themselves at intervals of one or two days. On examination there was an elevation in the supraclavicular fossa, hard and resistant and of bony consistency, slender, elongated structure traceable to the transverse process of the seventh cervical vertebra. Immediately in front the subclavian artery is felt and its beatings are visible. A thrill is also felt, and on auscultation a marked murmur is heard. All the other organs were normal. There was nothing unusual in the development of the left superior extremity. An operation confirmed the diagnosis made of "cervical rib." Care was taken in excising it, not to injure the vessels or the brachial plexus. The length of the rib was $1\frac{1}{4}$ inch. Recovery was uneventful, union by first intention, and 17 days after the operation patient was discharged cured. Menocal also reviews the literature on the subject and claims there are but 20 other such cases on record, and all were unilateral.

Treatment of Fractured Patella.—This contribution by Von Mikulicz-Radecki, Professor of Surgery at the University of Breslau, was sent as his share in contributing tokens to Lord Lister (*Brit. Med. Jour.*, Dec.

13, 1902). It is not usually known that Lister was the first, just 25 years ago, to suture the patella. The older operations, as Malgaigne's hooks, subcutaneous suture of the patella, as well as various kinds of bandages and appliances were in this way expelled from the armamentarium of surgery, and it became the duty as well as the right of all who were qualified to do so, to treat the fracture by this method. In deciding whether or not a case is suitable for suture, the same principles prevailed as to the technical performance of the operation, the type of the injury and the constitutional condition of the patient being important factors. It is not possible to differentiate with certainty between those fractures which have been made directly or from muscular violence inasmuch as the individual usually falls and is very apt to contuse the knee at the time of injury. However, in a large proportion of the cases, it is possible to reach at least a reasonably sure conclusion and he has with few exceptions abstained from suturing the patella in blow fractures, limiting himself here exclusively to medico-mechanical treatment, the suture being carried out in the combination and tear fractures. No time should be lost to see whether function reestablishes itself if the case be one suitable for operation, and this should not be delayed beyond the end of the first week, for the later one operates the more difficult is the work and the less certain the result. So far as the medico-mechanical treatment goes, its principles are absolute. The immobilization of the joint for a short time with elastic compression massage from second to the fourth day, out of bed the end of the first week with removable plaster-of-Paris splint. After the third week, careful active and passive movements begin and the case is completed with suitable mechanical apparatus. The details of suturing are as follows: The limb is not exsanguinated, the incision, as Lister originally suggested, is in a transverse direction over the fracture and long enough to expose the parapatella ligaments and the torn capsule. For suture he formerly used silver wire, but now much prefers brass wire, which is stronger. The patella is pierced by three or four sutures which should not include the cartilage. Great stress is laid on the fact that the accessory ligaments should be sutured on each side with one or two sutures as well as the patella. The blood clot is removed with a sharp spoon during irrigation with salt solution. The wound is not drained, but a gap of one centimeter at each end is left unsutured. This suffices for the escape of any subsequent oozing. The after-treatment of sutured cases is in the main the same as that described above. Both methods, the operative and the non-operative, give equally good results with the right interpretation of indications and a correct technic. These methods are distinctly supplementary one of the other, are not alternative, each having its own definite, sharply marked off indications.

Hernia of the Bladder.—An interesting paper dealing with the classification, symptomatology and treatment of vesical hernia, by G. BARONI (Rif. Med., Dec. 19 and 20, 1902) who emphasizes the fact that this condition is often overlooked or incorrectly diagnosed, thus making it appear to be of infrequent occurrence, though it cannot be classed among the rare affections. The author states that of the various forms of vesical hernia—crural, obturator, perineal, vaginal and inguinal—the last is the most common; the vaginal cystocele ranking second in point of frequency. This, however, he relegates to the gynecologist, as falling more within his domain, and discusses inguinal hernia of the bladder as being the form most frequently dealt with by the general surgeon. The following review of the objective and functional symptoms is given: If the tumor be a simple cystocele, it will be soft and flaccid if empty,

tense and fluctuating if full of urine; the size varying with the horizontal or vertical position of the patient, exertion or coughing. Two characteristic features are that the tumor is always reducible, and pressure upon it provokes a desire to pass the urine. Much information may often be gained by noting the effect, upon the size and consistency of the tumor, of withdrawal of urine or injection of fluid into the bladder; also the passage of the sound, where practicable, into the protruding part of the bladder is a valuable aid to diagnosis. If the tumor be a cysto-enterocele, it will be found to consist of two portions; an internal and posterior part, having the characteristics of the cystocele and giving a dull note on percussion, and an anterior and external part which gives a tympanitic note and a gurgling sound when replaced. Of the functional symptoms, disturbances of micturition are the most prominent; a frequent desire, with scanty emission of urine being present. A characteristic symptom is found in the patient's ability to void, spontaneously or by catheter, a certain amount of urine; a second portion being passed after compression of the tumor, which is then seen to be empty. A symptom common to all the cases, seen by the author, was pain in the region of the kidney upon the side corresponding with the hernia, and radiating downward and forward to the tumor. If palliative treatment, consisting in reduction and support with a bandage, be unsuitable to the case, operation must be resorted to.* Resection of the protruding part is considered inadvisable by the author, unless the neck be so constricted as to render it little more than an appendix to the bladder after reduction.

Urine Segregation.—The importance of gaining an accurate idea of the functional and anatomical condition of each kidney before proceeding to a radical operation is evidenced by the attempts made during recent years to devise practical and safe methods for obtaining the urine separately. Two methods have been employed: ureteral catheterization and urine segregation. The former method is in many instances difficult and impracticable. Three urine segregators have been devised thus far, the last that of A. J. DOWNS, first exhibited in 1900. He has lately modified this instrument (Phil. Med. Jour., Jan. 10, 1903) by constructing a new beak which obviates the necessity of rotation within the bladder. The beaks turn each a maximum of 2½ degrees from the lower, antero-posterior line of the bladder, and when separated they closely follow the lower wall of the bladder. The perforations in the beak have no connection with the one egress opening, their function being to allow the passage of urine to the bottom of the prepared sulcus, from which the egress opening collects it by siphonage. He has proved the accuracy of the instrument in patients with only one kidney—the urine coming from the kidney side alone when the segregator was in place.

Operation for the Relief of Gastropnoia.—It is believed that the majority of women have gastropnoia and yet, until recently, but few surgical measures have been employed to offset the numerous failures in the mechanical and medicinal treatment of this distressing malady. H. O. WALKER (Jour. Am. Med. Assoc., Jan. 17, 1903) reports three cases in which gastro-jejunostomy was done for the relief of a chronic invalidism due to this condition. The author's experience in gastroplication and gastrorrhaphy having been unsatisfactory he conceived the idea of making a direct opening from the stomach into the intestine in an attempt to relieve the pyloric kinking. In all cases the McGraw elastic ligature was used, the anastomosis being made between the anterior wall of the stomach and a point in the intestine about 24 inches from the pyloric orifice. In one

case, to obviate the production of a vicious circle, he did an anastomotic enterectomy below the gastro-jejuno-stomy. The cases all did very well, increasing in weight and presented no further symptoms referable to the gastropnoxis. The advantages of the McGraw method being simplicity, ease and rapidity of performance, small liability to sepsis, no danger of a foreign body, possibility of a large opening without liability to cicatricial contraction.

Basedow's Disease Surgically Considered.—In the opinion of T. W. HUNTINGTON (Ann. of Sur., Jan., 1903) the surgical treatment of this disease has the following features: He says that argument as to the legitimacy of surgical therapy in Basedow's disease is unnecessary. The transitory relief attending protracted efforts at medical and electrical treatment is generally admitted. Kocher insists that all cases of Basedow's disease should be operated. The argument for early operation in malignant disease applies here with equal force. Extirpation, the only rational treatment, should be undertaken before destructive tissue changes have occurred, before the patient's vitality is lowered by chronic thyroid intoxication. For obvious reasons, complete bilateral extirpation should never be undertaken. A small fragment of the least affected lobe contiguous to the tumor can be located and left in situ. Advanced cases, requiring interference with both lobes, should be undertaken in two steps, with an interval of from two to four weeks between operations. The point made by Dr. Joseph A. Blake of New York, that excision is better than enucleation in these cases, undoubtedly has merit, the former procedure is readily accomplished without hemorrhage, by applying double ligatures to vessels as they are exposed and dividing between. The latter procedure is inevitable when a lobe is to be divided, and in a few instances hemorrhage from the parenchyma of the gland will exercise to a high degree the ingenuity of the operator. In reviewing the detailed histories of a certain number of cases resulting fatally within a short time after operation, one cannot escape the conviction that general anesthesia is, in a very large proportion of them, seriously at fault. The facility and thoroughness with which local anesthesia can be accomplished is almost universally recognized. Cocaine, or one of its analogous compounds, has supplanted chloroform and ether, and their great value is manifest in this over all other applications of these drugs. Up to a recent date the exhibition of these agents has been by the ordinary hypodermic or Schleich method. A few months ago, in an interview with Dr. J. Marshall Flint, Professor of Anatomy in the State University, he made the very pertinent suggestion that nerve-trunk cocaineization after the plan evolved by Professor Halsted, and successfully employed by Harvey Cushing in herniotomies, was practicable in this undertaking, and advised so dealing with the superficial cervical nerve. So far as the author can learn, the employment of what Cushing terms "regionary anesthesia" in three operations which he reports, is the first application of Halsted's idea to this undertaking. Although it was supplemented by a small amount of Schleich's solution, there was no doubt that the method could be relied upon independently in the average case. To expose the nerve, the incision should be made along the posterior border of the sterno-cleido-mastoid about the level of the thyroid cartilage. This may be done under cocaine anesthesia. The area of anesthesia, according to the anatomical distribution obtained will be triangular, with its apex at this point and its base at the median line. Direct experiment on the cocaineization of nerves has shown that the boundaries obtained in this way often vary considerably from those given in text-

book descriptions. The reason is obvious, for many of the finer branches, which convey sensation, are often too delicate to dissect. Moreover, it is now well known that the areas supplied by adjacent cutaneous nerves often overlap. The cocaineization of the nerve trunk after exposure can be readily effected by the introduction within the nerve-sheaths of two, or at the outside, three, minims of a two-per-cent. solution of cocaine, through a very delicate hypodermic needle. The duration of anesthesia is manifest for a period of fully one hour.

Some Points in Ligation of Arteries.—This is a very broad field, and opens up a great number of possible operations. R. H. M. DAWBARN (Ann. of Sur., Jan., 1903) discusses a number of the more important ligations, of which the following may be taken as an example, namely, ligation of the superficial femoral at the so-called point of election, ordinarily given as $4\frac{1}{2}$ inches down a line running from the middle of Poupart's ligament to the adductor tubercle upon the inner condyle of the femur. This rule obviously has disadvantages—three measurements must be taken in order to operate by it. That which the author suggests, instead, is the following: In a full-sized man the point of election will be found seven inches down a line, taking the shortest possible course from the anterior superior iliac spine to the middle of the popliteal space. Reasons: (a) This rule involves but one measurement; (b) the tape-line lies upon the skin its entire distance; (c) it requires measuring only the hypotenuse of the triangle described by Scarpa, instead of finding half of its base line and then bisecting the triangle, which is the customary way. It is a scalene triangle, and the hypotenuse is a very long one, which is why the seven-inch mark happens to be exactly the same as a $4\frac{1}{2}$ inch one by the usual rule. He believes the common femoral has never been found bifurcating lower than four inches down the accustomed line; hence the reason for adopting heretofore a $4\frac{1}{2}$ -inch point of election. Ligation of the superficial femoral in Hunter's canal, i.e., at any point in the middle third of the thigh, there being no femoral artery in its lower third. This is the ligation called by more than one of the text-books the "difficult ligation" to distinguish it from the one just mentioned at or about the apex of Scarpa's triangle. The rule which he strongly recommends here permits the artery to be found as easily as the pulse at the wrist; and it is the only way to make it so easy, namely, sharply to abduct the thigh and flex the leg, bringing the heel up against the perineum, or as nearly so as possible. An assistant also presses the knee downward toward the table. The limb is thus brought vigorously into the sartorial or tailor's position. In this position the adductor longus, one of the three sides of Hunter's canal, comes boldly up into relief as a firm, tense ridge. If now, the incision be made lengthwise upon this ridge, and deepened along its upper surface, it will be wholly impossible to miss the artery. The first muscle exposed in this incision will be the sartorius. It should be displaced outward (upward). It is recognized readily as being the only muscle upon the antero-internal surface of the thigh, the fibers of which run downward and inward, all others here running downward and slightly outward; and again, the sartorius will be completely relaxed and flabby in this position, while the adductor just beneath will be tensely rigid. The roof of the canal, the fascia lata, is here transverse in the direction of its fibers. It is translucent, and through it we can clearly see the artery almost as readily as if through glass. Although in the accustomed position for ligation, the vein lies, in Hunter's canal, to the outer side of the artery, in this position, now recommended, the

vein lies beneath the artery, very much as it is found in the ligation near the apex of Scarpa's triangle.

The Surgical Importance of Influenza.—In a very long article of this title I. PEREZ (Deut. Zeitsch. f. Chir., Nov., 1902) draws his conclusions from a review of no less than 520 papers, as well as from his own voluminous experiments on the subject. The more important are as follows: Influenza is a remarkable protean disorder which possesses the highest toxic character and whose specific cause is the bacillus Pfeiffer. This bacillus lodges, and causes the characteristic pathological changes so well known, but often so variable, in almost all the organs, but more particularly in those which, because of the nature of their protoplasm, are most liable to inflammatory processes. The influenza toxins take hold particularly on the central and peripheral nervous system where they cause either a simple catarrhal process or even purulent, never, however, producing a fibrinous change. The polymorphism of this sickness depends on the location of the infection as well as upon the extent of involvement. Pfeiffer's bacillus enters through the usual paths, viz.: the mucous membrane, the skin, the vascular system, and so on. The course of the sickness depends on the strength of the organism more than upon the path of entry. If the bacilli are introduced in small numbers, they are apt to remain locally. If, however, in great quantities, or if the organism is extremely prostrated at the time of infection, then certain more or less pronounced changes take place which in the early stages present the appearance of a profound toxemia, as a result of which the individual may perish in a short time—from one to three days. On the other hand, however, in the case of a localized inflammation which sometimes appears with great suddenness in several organs at once there may be present toxic evidences of a subacute nature. In these cases the patient lasts a longer time, from 20 to 60 days, dying finally from marasmus. The influenza bacillus remains for only a short time in the blood stream, being swept by this current into the various organs. It is only on rare occasions that its presence in the blood can be demonstrated. The skin is the most marked region where one expects to find the peculiar changes characteristic of the infection of Pfeiffer's bacillus. They are very varied. In the derma, abscess formation is common. In the mouth, the pharynx, the larynx, the trachea and bronchial system the bacillus usually produces a catarrhal inflammation. In the nasal mucous membrane this may be either simple or purulent and may even progress so far as to form abscesses and hemorrhages. It is in the middle ear, however, that the influenza germ finds its real home. Here it develops and frequently produces empyema of the antrum with the direful sequelae of meningeal involvement. In the osseous system the bacillus may produce a hypotrophic periostitis as well as suppurative otitis. In the joints infection of this type usually produces simple serous inflammation, but elsewhere it may become purulent. Even the muscles are not exempt from its inroads and a suppurative myositis is often met with in the course of influenza infections. In the peripheral nervous system the infection produces degenerative inflammatory changes which may give rise to single or multiple neuralgias or pareses. In the alimentary canal one may frequently find gastroenteritis, which occasionally proceeds to suppuration, not infrequently producing periappendicular abscesses which too often go on to death from suppurative peritonitis. In the liver a perihepatitis and hyperemia as well as interstitial hepatitis with necrosis of the liver cells and possible abscess formation are to be looked for. In the female generative organs the bacillus of Pfeiffer gives a hemorrhagic endometritis, a salpingitis,

a catarrhal vaginitis which may sometimes be purulent. In the ovary alone it appears never to produce any change. In the early months of pregnancy, however, it is prone to produce abortion. An excellent example of symbiosis exists between the staphylococci and Pfeiffer's bacilli, in which the human body is the loser. Any region which has been previously invaded by the first-named germ seems peculiarly suited to harbor the second, and this would appear to be one of the most frequent aids for the entry of the influenza germ. In establishing a diagnosis of influenza infection, the microscopic investigation of the discharge is of the highest worth, and it is characteristic that the bacillus is found almost always within the cells. The serum taken from animals infected with influenza produces a moderate agglutination reaction but this is not sufficiently constant to be of marked diagnostic value. One important differential diagnosis to be made is whether a given case is pure influenza infection or contaminated with the pneumococcus, this combination being frequent and virulent. There is no such thing as passive immunity for influenza, only a moderate and rapidly vanishing active immunity seeming to be produced. It will be seen that many of these conditions, which should now be recognized as due to Pfeiffer's bacillus, are too often classified under the old and unscientific name "rheumatism."

Roux's Operation for the Radical Cure of Femoral Hernia.—Although an infinite number of technics have been described and successfully employed in the treatment of this form of hernia, it is well known that none have been absolutely satisfactory. It has always been difficult to effectually block the femoral canal. J. CRAWFORD RENTON (Brit. Med. Jour., Dec. 27, 1902) describes the operation which he had seen Roux perform in Lausanne. He himself had used it in ten cases while Roux has employed the technic on over 60 cases without recurrence. The technic is as follows: (1) a simple incision over the crural canal; (2) isolation of the sac, reduction of its contents, ligation of its neck and amputation; (3) a metal staple is passed obliquely through Poupart's ligament over the crural canal, taking care to avoid the femoral veins and artery and of course the nerve, and is then gently hammered into the pubic bone; (4) simple closure of the skin incision. The only important points in connection with this simple and satisfactory procedure are first that the staple must not be driven in too tightly, otherwise it might injure Poupart's ligament. On the other hand it must have a sufficient grip not to be loosened by the ordinary blows which might come to the part. It remains permanently in situ. In those cases in which it has been used it has caused no irritation either of the soft parts or the hard parts and seems to offer a very valuable technic for the curing of this frequent form of hernia.

Subdural Interposition of Rubber Tissue without Removal of the Gasserian Ganglion in Operations for Tic-douloureux.—The hemorrhage and the dangers from hemorrhage and shock led R. ABBE (Ann. of Surg., Jan., 1903) to reason that mere division of the affected trunk of the nerve within the skull, coupled with the interposition of a bit of rubber tissue between the divided ends would not only obviate the major operation of removing the ganglia, but also effectually prevent the reunion of the cut nerve. The operation which he advocates in grave cases of this disease is that the surgeon should not temporize by any of the external methods of operating, but at once resort to this, which now seems to him the proved and radical cure in its safest form. The external carotid artery may be ligated with advantage in controlling hemorrhage. A vertical incision over the middle of the zygoma carried through the temporal muscle to the bone divides no important

nerve or vessels. The muscle is scraped to either side and held by retractors. A small opening is quickly made by mallet and gouge, and this is rapidly and safely enlarged to an inch and a half diameter. No better exposure can be had by any incision than this simple straight one. The dura is then pressed away from the middle fossa until the nerves are exposed. The much complained hemorrhage from venous sinuses on dissecting up the periosteum can be best controlled, and very quickly, by pressing a strip of rubber tissue upon the place with a firm pad of gauze in strips. The clotting of blood under the rubber tissue takes place very quickly, while if plain gauze is put in contact with the bleeding point, the blood being sucked up into it, prevents clotting. The nerve trunks he grasps in separate artery clamps, divides each close to the foramen of exit, and, either by cutting or by rotation of the forceps, separates them from the Gasserian ganglion. The wound is packed for a few minutes with narrow strips of iodoform gauze until dry. A piece of thin gutta-percha tissue, stiff enough to be easily handled, is sterilized by rubbing with bichloride solution, and kept in salt solution for a few moments before operating. This is cut $1\frac{1}{2}$ inches long and three-fourths of an inch wide. This is laid carefully over both the foramen rotundum and ovale, where the nerves have been separated and pressed carefully into place by iodoform gauze. In a very few moments the gauze may be drawn away, and the Gasserian ganglion allowed to settle down upon the rubber tissue. A small drainage-tube should be placed in the angle of the wound to insure a perfectly dry healing. It certainly is beyond dispute that there is no need for the removal of the first branch of the fifth pair in any case of grave tic-douloureux unless the origin is to be found in a tumor of the Gasserian ganglion or behind it. In conclusion, he says that he thinks he has demonstrated (1) that the operations upon the ganglion have been carried to an unnecessary degree of severity; (2) that resection of one-fourth or one-half inch of the nerves anterior to the ganglion and within the cranium, with the interposition of rubber tissue, can be relied upon for perfect cure, up to six years at least, with probability of permanency as great as by any method; (3) that it is a simple, speedy, and safe method, and thereby fulfils the highest aims of the best surgery.

Tuberculous Peritonitis.—In a most interesting paper on this subject, in discussing the theories of the etiology, symptomatology, diagnosis and treatment, Prof. Verr, of Leyden (*Gaz. de Gyn.*, Jan. 1, 1903), comes to the following conclusions: (1) Tuberculous peritonitis is always a secondary lesion, and is either of the ascitic or adhesive variety; (2) tuberculosis of the genital organs may be primary, and consist of lesions of the reflected portions of the peritoneum covering the genital organs alone; (3) peritonitis with extensive nodule formation, which one could not attribute to certain tumors of the ovary or to carcinomatous origin should, in general, be ascribed to a tuberculous origin; (4) tuberculous peritonitis may undergo spontaneous cure, but such instances are rare; (5) tuberculous peritonitis is cured by laparotomy, though it may not always be successful, the cause is the presence of tuberculosis in the other organs; (6) there is still no unanimity of opinion as to the rationale of these cures. Possibly it is due to the normal serum or the formation of an antitoxin; (7) in recent cases, one should operate if the peritonitis gives distress. The repetition of the operation may become necessary if one has to operate very quickly; (8) certain chronic cases ought to be looked after immediately. If spontaneous cure is delayed, it is necessary to interfere; (9) the operation consists of a simple laparotomy in the white line, the evacua-

tion of the contained fluid, and the suture of the operation wound; the operation should not be considered as radical, if it is found that the tuberculous lesions are confined to the genital organs.

Parotitis Following Celiotomy.—Inflammation and swelling of the parotid gland, as a post-operative complication of celiotomy and pelvic surgery, are very rare. The relation of the parotid gland to the viscera of the abdomen and the pelvis is an unexplained problem even to-day. W. H. MORLEY (*Am. Gyn.*, Dec., 1902) has tabulated 51 cases and has come to the following conclusions: (1) there is an intimate relation between the parotid gland and the abdominal and pelvic viscera; (2) this close relation probably exists through the medium of the sympathetic nervous system; (3) suppuration and non-suppuration of the parotid gland in these cases depends entirely upon the local condition in the gland; (4) this complication may follow any operation upon the viscera of the abdomen and pelvis but it occurs more often after an ovariectomy; (5) the patient's life is not jeopardized per se by the occurrence of this complication; (6) the appearance of the parotid bubo usually marks the turning point of the disease.

PEDIATRICS.

Sudden Death in Children.—That sudden death in the case of a child said to have been perfectly healthy is not always to be ascribed to the ignorance and negligence of the parent, is shown by the fact that it sometimes occurs in the families of physicians. P. KRAUTWIG (*Arch. f. Kinderheil.*, Bd. 35, Hft. 3 and 4) cites the case of Langerhans whose twenty-two-months-old child received an immunizing injection of diphtheria antitoxin and five minutes later displayed rapidly increasing agitation, had an attack of coughing, became pale and fell to the ground; it then had another coughing spell, became blue, the pupils dilated, the child swallowed several times, foamed at the mouth and then died. The father at first attributed the child's death to the antitoxin but later admitted that the status lymphaticus was the cause. The author believes, however, that the stupidity, indifference and superstition of parents are responsible for a great many cases of sudden death in children. A severe coryza in infants may be present for many days and pass unnoticed; likewise an extensive bronchitis may not be detected, the child having the strength neither to cough nor to cry. Intestinal disturbances and a slowly progressing cerebral disease are often disregarded. All causes of sudden death may be grouped under two general classes, syncope and asphyxia. Of the former there are numerous causes leading to cessation of the heart action: wasting of the heart muscle, fatty degeneration, wounds, anemia following occlusion of the coronary arteries; impediments to the heart's action by fluid in the pericardium or pleura, obstructions in the circulation, as in paralysis of the splanchnics and thrombosis of the portal vein. All these causes find few exceptions in children. Arteriosclerosis as a cause of sudden death is not seen in childhood. After the recovery from diphtheria, cases occur as the result of myocardial changes. Other causes are severe choleraic intestinal disturbances, producing anemia of the heart by paralysis of the splanchnics with consequent plethora of the abdominal organs, which together with ischemia may cause sudden death. Cases occur in rachitic children in whom the distended stomach and intestines may push up the diaphragm, and narrowing the chest cavity already compromised as the result of the rachitic process, may cause mechanical arrest of the heart. The toxins produced in intestinal disturbances, in infectious diseases, particularly diphtheria, and rachitis, may cause

cardiac arrest by stimulation of the acceleration and inhibitory nerves of the heart, of the cardiac ganglia and the vasomotor and vasodilator nerves. Cases of sudden death during rapid healing of extensive eczemas in nurslings, have been ascribed to some action on the innervation mechanism of the heart; acute nephritis has been found in such cases at autopsy. The other groups of causes leading to sudden death by asphyxia include the following: Direct restriction of the activity of the respiratory organs by pneumonia, bronchitis, atelectasis, etc.; occlusion of the rima glottidis by inflammation, edema, paralysis or spasm of the laryngeal muscles, compression by tumors, especially by an enlarged thymus gland; spasm of the diaphragm in tetanus and eclampsia; anemia of the medulla oblongata in heart-failure and hemorrhages; the inhalation of poisonous gases. Diffuse bronchitis and lobular pneumonia are sometimes not noticed by parents or nurses, and even physicians may be unaware of the gravity of a case. The author frequently experienced cases of children whom he left a short time before laughing and playing and who died suddenly with only a diffuse bronchitis discoverable at autopsy. He is of the conviction that many supposed cases of death from overlying (accidental suffocation of the infant by the mother during sleep) are really caused by an unobserved disease of the lungs. Tuberculous meningitis is frequently overlooked: the physician is first called when convulsions have set in and the disease is in full bloom. Asphyxia may result from the inhalation of foreign bodies, including flies and roundworms; the possibility of postmortem migration of the latter is to be thought of. The aspiration of vomited material frequently occurs in childhood. Spasmus glottidis and compression by an enlarged thymus are the most frequent causes that operate through asphyxia. The author is of the opinion that laryngospasm is in most cases one of the manifestations of tetany. Both forms of nervous disturbance are rooted in the same soil as rickets. Spasm of the larynx is found most frequently in artificially fed infants of the poorer classes living in small damp rooms. The enlarged thymus is one of the manifestations of rachitis. Likewise the status lymphaticus of Paltauf and Eshersch, although not directly specific of rickets, yet develops under the same conditions; the swelling of the lymphatic chain about the neck is analogous to that of the thymus gland. The author believes that most of the so-called cases of thymus-death are due to the effects of rickets; the metabolic products of the latter act upon the cardiac nerves and ganglia. The reason assigned for this opinion is the fact that frequently these cases appear suddenly without antecedent dyspnea, without the crowing or whistling sound, and without accompanying convulsions. The cases ascribed by Henoch to swallowing of the tip of the tongue are not now considered to be as frequent as formerly.

Epidemic Edema in Infants.—At the Lying-in Hospital, Providence, during an epidemic of gastro-enteritis among the babies, thirteen cases of edema made their appearance in eleven days. The patients all had gastro-enteric trouble either immediately preceding or at the onset of the edema. Their age varied from six days to two years. Four of the cases left against advice, and the remaining nine all died after being several hours in collapse. There were no convulsions or coma. There were six post-mortems, three of which showed bronchopneumonia, one day, one month and two months respectively after the edema had disappeared. The cause of death in the others was not clear. The symptoms were as follows: Face pale, pasty-looking, apathetic, depressed, temperature subnormal, skin dry, soft, deeply pitting on pressure. In a number of

the cases the edema was intense, and would rapidly change from the face to the legs or other parts of the body and vice versa. The weight increased before or with the appearance of the edema and decreased when the edema subsided. The urine in nine cases contained albumin but the casts were very few or none. One case which died while the edema was present showed normal kidneys at autopsy, so the kidney trouble was evidently not primary. The children were in three different wards on different floors, attended by different nurses, yet the trouble broke out simultaneously. All the patients were artificially fed, and this suggests that the milk may have caused the gastro-enteric trouble, and that some toxic products from this may have caused the edema. In discussing the causes of edema in infants, the author considers this epidemic to be most closely allied with the edemas occurring in depleted and anemic infants.

Peliosis Rheumatica in Children.—Though this disease is believed by Baginsky to be non-rheumatic, HENRY HEIMAN (Arch. of Ped., Dec., 1902) finds clinical features which indicate a correlation with rheumatism. The onset of peliosis is usually with sore throat, mild febrile disturbance and pains in the joints. The joints of the upper limbs are more often involved in children than in adults. The joints are painful, tender, very little swollen and not reddened; the pain diminishes as the rash appears. Tender nodules sometimes occur beneath the skin. In children the constitutional symptoms are milder than in adults, the rash more extensive, more joints are involved, the duration is longer, recurrences are more common and tender subcutaneous nodes are more frequently seen. Unger says that in children there often occurs edema about the lumbar region of the spine. Fuchs holds that there is always desquamation after peliosis and not after purpura. Monti says that the disease never occurs in nursing babies. The author describes the case of a boy of eight years with purpuric spots in the mouth, marked tenderness of the abdomen, and the development of an apical systolic cardiac murmur not transmitted to the axilla. The murmur was not audible a week later, and the cure was complete three months after the onset of the disease.

Intravenous Administration of Anti-Diphtheritic Serum.—The treatment of diphtheria by the injection of serum has passed its experimental stage. The method has usually been a subcutaneous injection. Intravenous injection of the serum is comparatively new and the points in its favor are argued in the following terms by D. R. CAIRNS (Lancet, Dec. 20, 1902). The marked reduction in the case-mortality in diphtheria effected the introduction of the diphtheritic antitoxin is admitted by everyone, but, great as this reduction has been, the experience gained in the treatment of this disease in the city of Glasgow Fever Hospital, Belvidere, suggests that even a further fall in the case mortality may be hoped for. The lines along which this improvement may be effected are twofold: (1) by the exhibition of larger doses than those commonly recommended and (2) in certain cases by the intravenous use of the remedy. The employment of larger doses of serum has been already advocated by several observers, but, so far as the author is aware, no one has recommended the intravenous use of the remedy. In a paper dealing with the serum-treatment of bubonic plague he has advocated the intravenous use of Yersin's serum as a most useful adjunct to the subcutaneous injection of the remedy, and the encouraging results obtained in apparently hopeless cases of this disease suggested the employment of the same method of administration in the treatment of severe cases of diph-

theria. Both diseases are due to the reception at a particular part of the body of a specific micro-organism which must be considered as the essential cause of the lesion, while the general symptoms of the disease are brought about by the absorption into the system of a definite chemical poison which is formed by the life-processes of the organism at the seat of inoculation. In plague the subcutaneous injection of Yersin's serum is followed not only by a marked antitoxic effect, as evidenced by improvement in symptoms, but when introduced into the lymphatic drain toward the bubo a directly bactericidal effect can be demonstrated, the organisms contained in the bubo showing evidences of degeneration very soon after the administration of the serum. When given subcutaneously, however, even in large doses, the effect of the serum appears to be chiefly a local one, degeneration appearing only in those organisms which lie within the area of injection. By the intravenous method, the maximum influence of the serum on the tissues and also on the organisms is obtained with greater rapidity than when the serum is used subcutaneously, and those bacilli which have overflowed from the primary focus of infection into the circulation can be reached directly and similar degenerative changes be produced, while at the same time the circulating toxin is most effectively dealt with. The fact that the administration of even large doses of serum subcutaneously is not followed by a commensurate improvement suggests that the serum, in its passage through the lymphatic vessels and glands undergoes a qualitative change whereby its power of neutralizing toxin is considerably diminished. This may be due to (1) a selective action exercised by the lymphatic glands in filtering out the active constituent of the serum, or (2) to the fact that, as Ehrlich has shown, there are a definite chemical action and reaction between toxin and antitoxin, neutralization going on more quickly and more effectively in concentrated solutions than in diluted ones. In the case of plague the local action of the subcutaneous injection of serum is probably directed in the first place to the neutralization of the toxin locally present in the bubo and its vicinity and also to inducing bacillary degeneration in the comparatively large number of organisms present in the primary lesion. Any surplus of antitoxic bodies which reaches the general circulation after passing through the lymphatic channels will probably be present in the blood in such a state of dilution as to be comparatively ineffective, especially in septicemic cases of plague. By immediate introduction of the serum into the general circulation, however, those bacilli which have found their way to the deeper organs may be destroyed and the circulating toxin neutralized by the comparatively concentrated solution of antitoxin.

Pasteurized and Sterilized Milk as a Cause of Rickets and Scurvy.—Although several good authorities have observed cases in which the use of milk modified by heat has seemed to cause distinct symptoms of rickets or scurvy, no very extended experiments have previously been made to determine how efficient and serious this food was in causing constitutional changes. E. M. SILL (Med. Rec., Dec. 27, 1902) has made observations upon 179 consecutive cases which have been fed during a period of from three to eighteen months, pasteurized milk being given for nine months of the year, while during the three summer months sterilized milk was used. The milk has been given out by competent nurses. Careful examinations of the children so fed have shown that 97 per cent. of the cases presented unmistakable signs of rickets or scurvy, most of the cases being rickets or a combination of rickets and scurvy. About 40 of the children had from five to

seven daily feedings of the sterilized milk, supplemented by breast feedings. These all showed signs and symptoms of rickets, although not so marked as in those who were fed upon this modified milk exclusively. The changes most frequently seen were beading of the ribs, pot-belly, sweating, flabby muscles, craniotabes and restlessness at night. These results would seem to add valuable evidence in support of the claim which has been urged so generally by competent authorities that the best substitute for mother's milk is fresh, pure, raw cow's milk.

GENITO-URINARY AND SKIN DISEASES.

Adrenalin in Urethral Work.—The following indications for the employment of this drug in urethral affections are presented by S. L. GANS (Phil. Med. Jour., Dec. 13, 1902): (1) In cases of mucous or mucopurulent discharge; (2) urine showing mucous or flat, scaly shreds and mucous shreds; (3) when endoscopic examination shows granular patches or superficial scleroses; (4) when pus cells, epithelium, mucous gonococci or other micro-organisms are present. He submits a number of urethritis, all of a very obstinate character in their resistance to other drugs, which were with few exceptions benefited by instillations of adrenalin chloride, 1 to 1,000. Summing up its value, the author finds that the field of usefulness of this drug in urethral work is limited to the same indications as for mucous membranes in other localities. It is painless to apply, and causes a cessation of secretion by contraction of the blood-vessels for a varying time. It will only act, however, on superficial lesions, and will bear watching for untoward action.

Catheterism of the Ureters.—The purposes of urethral catheterism in connection with the cystoscope are twofold—for diagnosis and treatment, according to B. LEWIS (Ann. of Surg., Jan., 1903). Under each of these heads he points out the following important points: **Diagnosis.**—(a) To locate the origin of pus, blood, tuberculous products or bacilli, the various pyogenic infections, abnormally desquamated epithelium, etc., as to whether they come from (1) the bladder, (2) the right ureter, (3) the left ureter, (4) the right kidney, (5) the left kidney, (6) the right, or (7) the left perirenal space, and communicating with the corresponding kidney or ureter. (b) To recognize and locate obstructive conditions in the right or left ureter from (1) stricture, (2) stone, (3) adjacent tumors, (4) bend or kink in the ureter from movable or dislocated kidney, (5) valvular junction of ureter and its pelvis. (c) To determine (1) the presence of two kidneys, (2) if only one, which is absent. (d) To determine the number of ureters present. (e) To determine the functional activity of each kidney with respect to its excretion of urea, albumin, quantity of urine, the specific gravity, etc. (f) To determine the size and capacity of each kidney with respect to (1) hydronephrosis, (2) pyonephrosis, (3) total obliteration of kidney-secreting tissue. (g) If there be kidney disease present, to determine (1) if only one kidney is affected, or both, (2) if only one, which is the affected one; (3) if both, which is the one most affected; (4) if removal of the worst one be advisable, is the other one able to carry on kidney function sufficiently? (5) if removal of one be advisable, and the other is capable of supporting life, will the operation remove infection from the body, removing the possibility of dissemination or recontamination? **Treatment.**—(a) To enlarge narrowings or stricture at (1) the ureter openings or (2) in the channel of the ureters. By facilitating drainage through the increased ureter-caliber, thus obtained, to assist in the improvement of pyelitis, or pyonephritis,

unilateral or bilateral. (b) To irrigate and medicate (1) the ureters; (2) the kidney pelves of one or both sides. (c) To assist, by anesthetizing and enlarging the ureter opening, the passage through it of a calculus or a plug of pus, blood, etc. (d) To use the ureter, after it is catheterized, as a guide in certain abdominal and pelvic operations. (e) By prolonged catheterization of a ureter to assist in the cure of ureteral fistula.

Genito-urinary Therapeutics.—So frequently does one hear of some new non-irritating antiseptic drug which is able to quickly destroy all gonococci without untoward results that one might think that the cure of an acute urethritis of specific origin was a very trifling matter. Experience tells, however, that the progress along these lines has been very slow and that the most successful physician is still the one who appreciates that nature herself is the great and chief factor in the elimination of the gonococcus, the germs being cast off in the pus cells and in the desquamated epithelia. Consequently, an expectant treatment which may do nothing more than leave nature alone is much better in its results than a spectacular one which thwarts her. E. FULLER (N. Y. Med. Jour., Dec. 13, 1902) believes that too much dependence is placed upon these local remedies. It should be borne in mind that the normal tract is sterile, and if normal functional conditions exist, a spontaneous elimination of a general infective principle promptly occurs. Therefore, if one finds a lasting infection grafted on the genito-urinary tract or any portion of it, the chances are that some other cause exists, and it should be made out as soon as possible. Defective urinary drainage, traumatism, special infections and communicating infections may be mentioned as frequent accounting causes and these often require surgical interference. So far as palliative means are concerned, and sometimes they are in themselves sufficient, diuresis and the administration of drugs to inhibit germ proliferation in the urinary tract are by far the most important. Drinking large quantities of soft water instead of using drugs, furnishes perhaps the best means of increasing the flow of urine. High saline enemata are also efficacious in emergencies. Of all the drugs used to meet the second indication urotropin is perhaps the only one upon which much reliance can be placed. Sterilization of the urinary tract previous to operation is considered by some of a great deal of importance and carelessness in genito-urinary surgery is to be deprecated, but the prolongation of operations by long-continued irrigations of the bladder and urethra seem unnecessary and harmful. Subsequent free drainage is of far greater importance. The use of anodynes following such operations is held to be detrimental to the patient's welfare, except on rare occasions, and should seldom be used. They usually mean that something is wrong, and they tend to obscure otherwise valuable danger signals.

Tuberculous Cystitis.—The treatment of tuberculosis of the bladder by washing with salt water, and the application of oil containing iodoform and guaiacol, is a method suggested by A. MONTFORD (La Sem. Méd., Dec. 10, 1902). The good effects which artificial serum produces in tuberculosis of the peritoneum, as well as the generalized and stimulating action which it exercises upon the nutrition of the tissues, were the means of suggesting this method of treatment of the bladder to him. Instead of washing out the bladder with boric acid water, he used the physiological solution of chloride of sodium. He left in the bladder each time a considerable quantity of it, directing the patient to hold it as long as possible. In order to carry out a kind of application, so to speak, and to produce a tolerance in the otherwise irritable bladder, he injects olive oil containing five per cent. of guaiacol and from one to two

per cent. of iodoform. He thinks that the iodoform deposits itself upon the mucous membrane, especially at the points of ulceration, and thus forms a kind of protective film. He alternates these applications with the irrigations with normal salt solution, and notes that the pain, bleeding and other well-known symptoms of this disease disappear in a very short time, or, in intense cases, ameliorate.

Treatment of Pruritus with Acids Internally.—The problem of treating a man, twenty-five years old, who was the victim of a generalized intense pruritus, was presented to H. LEO (La Sem. Méd., Dec. 17, 1902). Upon examination he found nothing abnormal in the individual except an alkaluria, due to the exaggerated elimination of phosphates. He therefore believes that probably the pruritus was due to an overalkaline condition of the blood, and proceeded to give the following treatment: He prescribed hydrochloric acid, 10 drops at a time, every two hours. The acid was 50-per-cent. strength. Under the influence of this treatment the intensity of the itching decreased and the urine at once became clear. At the end of a few days the acid was changed to a solution of sulphuric acid, 1½-per-cent. strength, a teaspoonful at a dose, every two hours, and later increased to 2½ per cent. Under its influence the itching disappeared altogether. Since then Leo has had occasion to try the same treatment in other cases of generalized pruritus, and also upon a woman who had pruritus of the labia. In all three of these individuals, before the treatment the urine contained alkaline reaction. He carried his experiments further by using the other mineral acids, notably phosphoric and sulphuric, in cases where the reaction of the urine was normal. Although he had with this treatment less success, he obtained one or two good results in generalized pruritus and in pruritus of the vulva. It therefore appears that this form of treatment deserves note, both from the standpoint of its simplicity and also of its evident sound therapeutics.

OBSTETRICS AND GYNECOLOGY.

Application of Cold in Gynecology.—Normal conservatism in operations about the female genitals is perhaps the rule to-day, and one of the best means of combating inflammation is rest in bed, combined with cold applied locally. In order to make the application of cold more successful and exact, Dr. STROYNOWSKI (C'blatt. f. Gyn., Dec. 13, 1902) has devised the following apparatus. It is analogous to Kemp's rectal tube, with the exception that it consists of two soft rubber tubes, one inlet and the other outlet, connected with corresponding lead tubes which enter a moderately dilated bulb, also of lead. This bulb sets against the cervix uteri or in one of the fornices of the vagina. A rubber tube over the system of lead pipes protects the sensitive outer organs from the cold. The water is run in through the inlet and passes out through the outlet tube into a receptacle under the bed.

Cardiopathies and Pregnancy.—An analysis of six cases of pregnancy occurring in patients with heart disease is presented by G. MORELLI (Gazz. Osped., Dec. 14, 1902). Of the number, there was one death occurring two months after parturition, one abortion, two premature births and two which went to full term and passed safely through the puerperium. All suffered serious disturbances and the condition of all, with one exception, was aggravated during the puerperal period. From all of which the author concludes that cardiopathies unfavorably influence the course of pregnancy and frequently lead to its spontaneous interruption; which latter may be looked upon as the maternal organism's natural measure of defense. Pregnancy, par-

turition and the puerperium, in many instances aggravate cardiac disease and bring about a disturbance of compensation which may prove fatal. No one line of treatment can be applied in all cases; hygienic, medical or obstetric treatment being required in individual cases.

Alexander's Operation.—In a discussion upon the indications for this operation and the results which may be expected. L. BROWN (N. Y. Med. Jour., Dec. 20, 1903) reports the results obtained at the Woman's Hospital during the past ten years. Normally the utero-sacral ligaments by their attachments draw the lower segment of the uterus in a backward direction while the body assumes a forward position, having the intra-abdominal pressure directed against its posterior surface. The broad and round ligaments act principally as guys preventing too great a movement backwards. If the round ligaments are shortened and a retroverted uterus made to resume its normal position the intra-abdominal pressure and the utero-sacral ligaments are given an opportunity to exert their influence. The broad ligaments also regain the tone which they had lost by the malposition of the uterus. In order that this operation should be successful it is necessary, however, that the uterus be free from adhesions. If the uterus is bound down it is essential that it should be freed before proceeding with any further operation and as a laparotomy is usually indicated, this may perhaps be better supplemented with Dr. Bissell's operation which consists of taking out a section of both broad and round ligaments. One great advantage of the Alexander operation is its comparative freedom from danger. Only two cases died in a series of three hundred and in neither of these cases could death be attributed to the operation. The shortened ligament increases in size and length with advancing pregnancies and involutes with the uterus subsequently. If the operation is performed by an experienced person, so that there is no unnecessary tearing of the tissues, hernia should never follow. In regard to the technic it is urged that both pillars and the external ring should be exposed to view before any effort is made to pick up the ligament. The nerve should always be isolated to prevent the possibility of its being caught in the subsequent scar. After withdrawing the ligament about four inches it is anchored in the wound by two black silk sutures each including both pillars of the ring, the ligament and the bottom of the canal. No other operation is believed by the author to give such uniformly good results in suitable cases.

Ureterovesical Anastomosis.—Of the many expedients resorted to for the restoration to function of an injured ureter, G. L. HUNTER (Am. Gyn., Dec., 1902) affirms that ureterovesical anastomosis is now recognized as the one to be preferred in the greatest number of cases. The conditions in which this operation is applicable may be classed under three heads: (1) In the immediate repair of surgical injuries to the ureter; (2) in operating for malignant disease where it is deemed advisable to cut through the ureter implanted in the growth; (3) in ureteral stricture from any cause, if the obstruction be near the bladder; in post-partum and post-operative uterovaginal and uretero-uterine fistulae, and in case of an abnormal congenital ureteral opening. The difficulty in performing the operation lies in the finding a method of suture that will give secure union when under considerable strain. The author has devised an operation that is thought to fulfil this requirement. It has been performed on two cases. Besides the instruments necessary to perform an ordinary abdominal operation, the following is a list of the special instruments needed. Two pairs of mosquito forceps,

two small round needles, fine black silk, catgut and a retention suture. The Operation:—The ureter is severed at the desired point and the hemorrhage at the stump controlled. The renal end of the ureter which is to be put into the bladder, is slit along its anterior and posterior walls for one centimeter, thus making two flaps. The fundus of the bladder is incised for about three to four centimeters, which constitutes the "working incision," and should be large enough to admit the tip of the index finger. Now, after having chosen the point where the ureter will enter the bladder, usually high and as far lateral as possible, a small incision is made by inserting a scalpel through the "working opening." Two forceps are then passed through this opening and out through the anastomosis opening, each forceps grasping one of the lateral flaps of the ureter. The sutures, which are four in number, are now put in place. The first, or posterior one, enters the bladder wall from a posterior direction, and after penetrating the serosa and muscularis, leaves the wall very close to the anastomosis opening; it then takes a similar hold in the posterior flap of the ureteral wall, about one-half cm. above the level of the slit, and crossing the ureter above the slit it grasps the posterior wall again, and descends to enter the bladder wall on the other side of the anastomosis opening, entering this time from the outer direction and passing posteriorly. A similar suture is set in the anterior ureteral wall. After denuding the flaps of their serous coats, the forceps draw them into the bladder, and the two external sutures are tied. These two sutures make a very firm anastomosis, but the addition of a square suture, fastening each lateral flap to the bladder wall, is a simple procedure and gives to the operation its claim of absolute safety. The flaps, still held by the forceps, are inverted into the working incision and a rectangular piece of bladder mucosa, corresponding to the size of each rectangular flap of the ureter, is cut off from either side of the anastomosis opening. The flap sutures penetrate all coats of the flap except the removed serosa. The sutures are of silk and are tied in the bladder, where they are left and removed at some time later through the urethra by means of the cystoscope unless suprapubic cystotomy is indicated, the working incision is now closed. In suitable cases the entire operation may be done extraperitoneally through an inguinal incision. Whenever possible the field of operation should be entirely covered with peritoneum. As too great stress cannot be laid upon the preservation of the ureteral sphincter muscle, uretero-ureteral anastomosis should be done whenever possible.

Gastrointestinal Hemorrhage of the New-born.

The occurrence of this malady in the new-born is less at this period (J. F. MORAN, Am. Gyn., Nov., 1902) than at any other time of life, but its mortality is very high—50 per cent. The etiology is very obscure, and the course of the disease in the cases which recover is about 48 hours,—it is self-limited, the hemorrhage usually ceasing with the complete evacuation of the meconium. Among those factors which have been mentioned as the cause of the disease are, changes in the circulation incident to the establishment of respiration, delicate condition of the blood vessels, inherited diathesis, cyanosis, external violence, difficult labor, malformation of the heart and other organs, chilling of the surface and bacterial infection. There are three pathological stages of the hemorrhages of the new-born: (1) those occurring shortly after birth; (2) those associated with some pathologic condition of the blood or blood vessels, as purpura hemorrhagica hemophilia, and eruptive fevers; (3) those due to local causes, as ulceration in typhoid, severe intestinal inflammation, me-

chanical irritation, lumbrici, etc. Many authorities claim that constitutional diseases, syphilis, etc., are etiologic factors in the production of the trouble. Klebs (1875) found constantly the bacterium which he named "monas hemorrhagica" in the vessels of the new-born dying of melena. The writer thinks that the self limitation of the disease would seem to show, that whatever the cause, it is but transitory, and the other signs and symptoms are but of secondary importance. The indication of treatment are threefold: to control the hemorrhage, maintain forces, and remove cause. In light cases, the promotion of respiration; absolute rest, external heat, bland nourishment, preferably albumen water and brandy, will usually suffice. The various vegetable and mineral astringents are of little or no avail as the stomach in the majority of cases is in an irritable condition, which is only aggravated by their action. Salt solution by the rectum is of little use as it is not retained, combined with gelatin and administered subcutaneously, has given excellent results. The author reports a case thus treated with cure.

Electrothermic Hysterectomy.—In the treatment of cancer of the uterus hemostasis has always been most important for those cases that do not well stand the loss of blood. Another important point in this disease is that we should hemostase in the tissues as far removed from the uterus as possible, with the view of going beyond the limits of malignancy. A. J. DOWNS, (Am. Gyn., Dec., 1902) insists that all malignant cells at the line of section should be killed; the lymphatic leading from this line should be sealed and rendered non-absorptive. Electrothermic hemostasis alone can fulfil these requirements. The outfit for electrothermic hysterectomy consists of three angiotribs, all alike except in the size of the blades which vary in width only. The heating apparatus is such that the acting blade can be brought to the proper temperature in from ten to twenty seconds according to the size of the blades. The cable is made in two parts, one, which does not require sterilization and brings the current from the transformer to the operating table, the other, flexible and covered with lava strips, can be sterilized and be placed with our instruments. They are connected at the edge of the operating table. The author's knife is required. Where there is no street current a storage battery of 75 ampere hours' capacity when fully charged will give sufficient current for the three major operations. By this method the author has performed five hysterectomies for cancer. The forceps are applied as in the application of the angiotribe, and then the uterus is cut away by means of the electrocautery knife. The operations were less bloody than by the ligature method. As a type of operation that can be done by this method, it can be said that any hysterectomy that can be performed by ligature, can more readily be done by electrothermic hemostasis. The writer thinks that any operation so practicable as this method, is worthy of serious consideration and should be given a fair and honest trial.

An Intra-uterine Applicator for Fluids.—A mechanically ingenious, yet surgically dangerous, device is the following, reported by H. GLÖCKNER (C'blatt f. Gyn., Dec. 20, 1902): An inlet and outlet tube, modeled in general to the size of a rather large intra-uterine sound, are fastened side by side, with the outlet really embracing the inlet tube. At the surgeon's end of the latter is affixed a rubber bulb into which the medication is to be drawn. The bulb is armed with a metal outlet, turned to make the slip-joint with the inlet tube of the nozzle. The stop-cock in the inlet tube of the nozzle closes it at will, and similarly, the one in the outlet tube. With the bulb filled and connected up, the

stop-cocks of the nozzle are opened, and pressure upon the bulb squirts the fluid into the uterine cavity.

A New Breast Pump.—The difficulty of keeping the following apparatus aseptic and perfectly safe for use, except in the hands of those who are trained in asepsis, constitutes the great objection against it. The main apparatus, says H. GLÖCKNER (C'blatt f. Gyn., Dec. 20, 1902), consists of an ordinary breast pump, as seen in the shops in this country, namely, a large glass bulb with a flaring mouth, of such form as to make it readily adaptable and tightly fitted to the breast. A vacuum is created by a rubber bulb. Opposite the attachment of this bulb is a tube leading out of the bowl, provided with a stop-cock, and to the mouth of this stop-cock is affixed an ordinary rubber tube. At the end of this rubber tube is a small piece of glass tube, for observation purposes, and over this observation tube is slipped an ordinary bottle nipple. The purpose of this apparatus is that the mother pumps the glass bulb full, opens the stop-cock, and, after milk has appeared in the observation tube, allows the infant to suckle at the nipple.

Endothelioma of the Uterus.—Endothelial tumors of the uterus are very rare and the one removed by O. SILBERBERG (Arch. f. Gyn., Vol. 67, No. 2) projected into the interior of the uterus and at first sight suggested a myoma which had undergone carcinomatous degeneration. It was of dirty-gray color, smooth surface and firm consistency. On incising the tumor, two different portions could be distinguished, an external one, dark in color and dense to the feel, and an inner, softer portion. The microscopical examination gave the typical picture of endothelioma with considerable areas of degeneration. No difficulty was experienced in making the diagnosis, but angiosarcoma had to be carefully excluded. Since the patient declined a larger operation and was lost sight of, the further course could not be ascertained.

Mortality in Pelvic Operations.—A series of 100 consecutive abdominal operations for pus in the pelvis with two deaths are discussed by HUNTER ROBB (Jour. Am. Med. Assoc., Jan. 17, 1903). From a consideration of the bacteriological and operative questions he believes that the mortality following operations for diseases of tubes or ovaries can be kept under five per cent. The virulence of the specific organisms present, the individual resistance of the patient, the time and manner of carrying out the operative technic largely influence the death-rate. *Streptococcus pyogenes* is usually the most virulent. As the organisms are generally dead, abdominal drainage is seldom called for, and is only necessary when it is impossible to remove the suppurative structures or where bowel perforation is feared from the separation of adhesions. The pus and its products may be satisfactorily removed by irrigating the pelvic cavity with salt solution. Leaving 300 to 500 c.c. in the abdominal cavity dilutes and promotes the rapid absorption of inflammatory products. This and elevating the foot of the bed for twenty-four hours tends to prevent the intestines and omentum from coming in contact with the immediate field of operation and diminishes the liability to adhesions. Should symptoms of infection follow operation, there is usually sufficient time to open the abdomen and wash out infectious material. The author thinks that operations for pus in the tubes and ovaries from the standpoint of the pus per se are not surrounded by any more danger as a rule than those in which a purulent focus is not present.

The Influence of Menstruation on Gastric Activity.—Both gynecologists and therapeutists (Müller, Eisenhardt, Freund, Jaworski and others) have long made

the subject of their studies the influence of diseases of the sexual organs of the woman on disturbances of the gastro-intestinal system. LIEMBUCK's (Pezeglad lekarski, No. 43, 1902) after a series of experiments on the connection between menstruation and gastric activity in the healthy woman, arrives at the following conclusions: (1) There is an undoubted connection between the two; (2) during the menstrual period there occurs an increase in the acidity of the gastric secretions—the so-called hyperaciditas menstrualis; (3) there is at the same time a hypersecretion of the gastric juice; (4) the motor activity of the stomach is considerably lowered during menstruation; (5) all these phenomena are of reflex origin. The practical value of these phenomena, even though not so great, is nevertheless important enough to attract our attention; (a) the stomach contents should not be examined during menstruation as the results obtained are not to be relied upon as a true indication of the individual's gastric activity; (b) in case there appear any gastric disturbances in a menstruating woman, we should rather resort to alkalies than acids; (c) women who suffer from ulcers of the stomach should observe an especially strict diet and rest during their menstrual periods, for it is at this time that the morbid process is liable to become worse, and even hemorrhage may appear. In some cases the author observed increase of the acidity and hypersecretion of the gastric contents during the interval between two menstrual periods, a condition analogous to what the Germans call Mittelschmerz. Under this we are to understand the appearance in the interval between two menstrual periods of various painful sensations, such as gastric, abdominal and lumbar pains, a sensation of weight in the pelvis, sometimes an increase in the vaginal secretions, etc., announcing the approach of the menstruation. Fliess asserts that the majority of women know of these "intermenstruating" symptoms. It seems that the heightened irritability of the nervous system in the woman at this period is reflected not only on the whole system, but also locally on the activity of the stomach.

Vaginal Cesarean Section.—Since Dührssen first advocated a vaginal Cesarean section, and employed for it the ordinary cervical incisions, his technic has been carried out by a great number of operators. E. BUNN (Cblatt f. Gyn., Dec. 7, 1902) after considerable experience with the operation in a large variety of diseases, concludes as follows: "When no carcinoma is present, it is much better to use the following technic: The vaginal portion of the cervix is exposed, with large retractors and Collins' hooks are inserted in the lateral ends of the external os. Then a sagittal cut five to seven cm. long is made in the mucous membrane over the front wall of the vagina up to the lips of the external os. The cellular tissue between the bladder and the cervix is now gently cut through with scissors and the bladder is pushed upward and forward until the internal os of the uterus is reached. The cervix is then divided in the middle line over the entire region exposed. The two margins of the wound are now seized in exactly the same manner as in morcellation or in vaginal myotomy, with the two Collins' hooks. In this manner still further portions of the lower segment of the uterus are approachable. The bladder is again pushed still higher up, and the portion of the uterus thus exposed cut through. This maneuver is repeated again. Thus the cervix and the front wall of the uterus is comparatively easily divided under direct control of the eye, and without going through the anterior vault of the perineum, up to a point between 8 and 12 cm. from the external os. Through such an incision the surgeon's hand may be readily passed, and

even large children withdrawn. After this procedure, the uterus is sewn up with a line of catgut sutures, and finally the union of the mucous membrane ends the operation.

Conservative Operations on the Ovary.—The importance of conservative operations on the ovary lies in the possibility of such procedures resulting in the removal or cure of diseased portions of this organ without detriment to the healthy structure. L. H. DUNNING (Am. Gyn., Dec., 1902) is most assuredly impressed with the fact that operations (conservative) upon sterile married women are unfavorable, and most unfavorable upon such barren women as are determined to bear children. Under other conditions, where it is possible to do so, it is best to leave in as much of the diseased ovary as is possible. Especial stress is laid upon the wholesale removal of cystic ovaries, many of which the writer believes to be removed unnecessarily. The following are the conclusions arrived at: (1) Operations upon ovaries that preserve the menstrual and reproductive functions should be employed in lieu of complete extirpation, especially in cases of extirpation of one ovary and where the remaining ovary shows, as pathological changes, a single cyst of moderate size, or several small cysts, or a single small hematoma; (2) healthy displaced ovaries may, with advantage, be anchored in as nearly normal position as possible by stitching them with fine catgut to the posterior surface of the broad ligament or by shortening the infundibulo pelvic ligament; (3) cases of sterile married women and women who are using means to prevent pregnancy are unfavorable subjects upon whom to do conservative operation upon the ovaries; (4) the writer believes that in pus cases, such conservative operations should, as a rule, be avoided.

THERAPEUTICS.

Blood Changes in Syphilis.—Losdorfer has described certain changes as taking place in the blood of syphilitic patients, marked by the presence of peculiar granules in the serum and cells, and also by a noticeable increase in the blood-plates. H. VORNER (Deut. med. Woch., Dec. 18, 1902) has recently observed, however, that the number of blood-plates depended on the presence and degree of an anemia and that in luetics who were not anemic no such phenomenon was observed.

Treatment of Tuberculous Cystitis.—Numerous have been the attempts to stay the progress of the tuberculous process in the bladder and equally numerous and alike unsuccessful the measures used to allay the, at times, almost intolerable pain caused by contact of the urine with the tuberculous ulcerations, writes A. MONFORT (Gaz. Méd., Nantes, Dec. 6, 1902). After having run the gamut of all the remedies in general use for this condition, he has evolved a method of treatment at once antiseptic, sedative and healing, which, if it may not yet, owing to its limited use, be considered in the light of a permanent cure, has at least in the author's experience, fulfilled all the conditions requisite for the control of distressing and dangerous symptoms. This method consists in lavage of the bladder with salt and water, 7 in 1,000, and local medication with guaiacolated iodoform and sterilized olive oil in the following proportions: Olive oil, 100 gm.; guaiacol, 5 gm.; iodoform, ½ gm. With the antiseptic, healing and analgesic properties of the latter, guaiacol combines to form an admirable remedy for the treatment of this painful form of cystitis; and the preparation makes it possible to use a full lavage of artificial serum; the painful effect of the contact of salt with the ulcerations being entirely nullified thereby.

The author believes the effect of artificial serum to be as beneficent in tuberculous cystitis as in tuberculous peritonitis; and makes a full injection of it into the bladder, directing the patient to retain it as long as possible. Under this combined treatment pain and hematuria are said to cease and micturition becomes less frequent and then normal. At the time of writing, several cases were improving under this treatment, and one case is quoted in which the cystitis was apparently cured; but one of the kidneys subsequently became affected. The author has in view the direct treatment of the kidneys with these remedies through catheterization of the ureters.

Mucomembranous Enterocolitis Treated with Methylene Blue.—A cure of this most troublesome affection, in a nervous woman of constipated habit, was accomplished by T. CECCHETELLI-IPPOLITI (Gazz. Osped., Dec. 14, 1902), who proceeded as follows: The patient was put upon a diet of milk and broths combined with somatose; and vichy water was prescribed. Irrigation with a two-per-cent. solution of methylene blue was practised twice daily, and by mouth a pill containing a centigram of methylene blue was given four times daily. This treatment was continued for twenty days; at the end of which time, marked improvement was seen. Hydrotherapy, abdominal massage and administration of iron completed the cure; which, after eight months' freedom from symptoms of the disease, the author feels justified in considering a permanent one. The favorable results obtained are attributed to the influence of methylene blue upon the nervous system, and to its disinfectant and antifermentative properties.

The Preparation of Benzoyl-Acetyl Peroxide and Its Use As an Intestinal Antiseptic in Cholera and Dysentery.—Bacteriological investigation having shown that solutions of benzoyl-acetyl peroxide are extremely active as germicides, and an attempt to procure a shipment from the United States having resulted in failure, it was decided to prepare this chemical in the treatment of cholera benzoyl-acetyl peroxide. The method of preparing this peroxide is described by P. C. FREER (Bur. of Govt. Lab. Bull., 1902, No. 2). In the treatment of cholera benzoyl-acetyl peroxide was at first given by mouth as frequently as possible in solution of 1 to 1,000, and by high rectal injections every six hours. For stimulation, brandy and strychnia were given hypodermically, and if the general condition of the patient was good, morphia was sometimes given to relieve pain. Turpentine stupes and hot water bags were also used to relieve pain. Vomiting was generally stopped by cocaine and cracked ice. In some hospitals the administration of double gelatine capsules containing each 0.25 gram of benzoyl-acetyl peroxide was resorted to, as it was found that the continued administration of solutions per oram produced vomiting. The high rectal injections form an important part of the treatment, especially in the second stage, when the bowel movements are approximately few, because the colon then contains a large amount of toxin which is flushed out by this means. Omitting deaths occurring immediately after admission to the hospital, and counting only those occurring six hours or more after admission, the mortality in 120 cases was 45.71 per cent. The native mortality was probably increased, owing to the difficulty in inducing native patients to take any medicine at all. Of six Americans treated, four recovered and only two died. Benzoyl-acetyl peroxide also gave very satisfactory results in eleven cases of amebic dysentery; it not only attacks the amebæ, as does quinine, but it also attacks the bacteria which are present in the intestines, and it has been found possible

by its use to greatly reduce the number of micro-organisms in the stools. This is important for the reason that bacteria closely follow the amebæ into the openings made by the latter in the mucosa; and cause increased destruction of tissue. When pyogenic cocci are present in large numbers their presence may be the immediate cause of death. In the treatment of dysentery, a 1 to 1,000 solution of the drug is used in enemas, from one to two quarts being slowly injected through a long rectal tube.

Prophylactic Measures Against Venereal Diseases, Especially in the Army.—That venereal diseases are spreading with alarming rapidity among soldiers is an indisputable fact, especially well known to the army surgeons of every nation. Thus GOULADZE (Russ. med. Rundschau, No. 1) brings forward statistics proving that out of 900,000 men, embracing the total strength of the standing army of the Russian Empire, there were about 35,000 venereal cases. In speaking of prophylaxis the author insists upon the physician gaining the patient's confidence, so that the full importance of the baneful disease is clearly and understandingly impressed upon the latter's mind. He especially deprecates the use of alcohol, as he finds that out of every ten cases of infection at least seven occurred while the patient was under the influence of Bacchus. Finally, he insists upon the observance of the following prophylactic measures: (1) Avoid sexual intercourse while under the influence of alcohol; (2) absolute abstinence in case any abrasion or erosion be detected on the membrum virile; (3) but one coitus at a time, for it has been proved beyond doubt that males are more readily exposed to infection who indulge in several connections at a séance; (4) anoint the penis just before the act with a thick layer of carbolated vaseline (four per cent.), and insist that your companion wash her genitalia with a three-per-cent. solution of carbolic acid; (5) after completion of the act wash the penis with soap and water, and a one-half-per-cent. solution of sublimate, or, when not at hand, with clean plain water, or with one's own urine.

The Treatment of Aneurisms by Subcutaneous Injections of Glycerin.—As based on the results of his own cases and those published so far, the conclusion of KORKUNOFF (Russ. Archiv., Pt. 13, 1902) seems to be that the subcutaneous injection of glycerine has been of quite marked benefit in many cases of aneurism, and this method of treatment deserves further trial, the more so as it is entirely devoid of any danger. He corroborates the assertion of Florencio de Castro that this method of treatment is the only means in our possession whereby we are enabled to relieve the patient's suffering, and even prolong his life. The following points are to be kept in mind: (1) The subcutaneous injections of glycerin being positive, result only in cases of sacculated aneurisms, in which there are no serious complications or accompanying organic diseases of important organs; (2) it thus follows that this method of treatment should be resorted to at an early stage of the disease before the occurrence of irreparable damage to the organism; (3) The treatment should be applied energetically, namely a whole series of injections must be performed, in accordance with the course of the affection and the degree of improvement. The treatment may have to be repeated, and it thus becomes necessary to keep the patient under one's care for a considerable length of time; (4) the amount and strength of the injection are to be determined by individualizing every case separately; (5) the introduction of the fluid must be done slowly, gradually and under strict asepsis; (6) the result is not to be considered in the light of a cure, but simply as a means that tends

to diminish the circumference of the aneurism, at the same time causing, as is to be assumed, a thickening of its walls. This effect is evidently in close connection with the formation of connective tissue in the walls of the aneurismal sac with a consequent sclerosis of the tissue.

Treatment of Local Tuberculosis.—Observations on a great number of treated cases led SEREMIS to the following considerations (*Med. Obos.*, Vol. 57, 1902): (1) Patients with local tuberculosis are never to be permitted to remain in the hospital for any considerable length of time; (2) as soon as the nature of the affection becomes clear and operative interference is indicated, the latter is to be resorted to at once; (3) when operating, remove all the affected tissue as thoroughly as possible, after curettage do not sew up the wound, but rather tampon it with iodoform gauze; (4) particular attention is to be paid to improving the general condition of the patient; keep him out in the fresh air, exposed to the action of sunshine; (5) as the patients with surgical tuberculosis require prolonged observation outside of an institution, the author recommends the establishment of branches connected with hospitals for the special treatment of such cases and the popularization, by literary means, of the various prophylactic measures.

Erysipelas and Antistreptococcus Serum.—The favorable results obtained in the treatment of erysipelas in an infant of three months with antistreptococcus serum, contribute additional evidence of the efficacy of this method of treatment, in the opinion of R. G. RYJOK (*Chron. Méd.*, Habana, XXVIII, No. 20, 1902). In the case which he reports, the disease, which had gradually involved the whole body, had been under treatment for three weeks with the various remedies usually employed, and had resisted all. An injection of 20 c.c. of antistreptococcus serum at once brought about a surprising improvement, which steadily continued; so that a second injection was deemed unnecessary, and guaiacol liniment was the only medication used thereafter; the patient making a good recovery within twelve days after the injection.

Mesotan in Rheumatism.—The value of external applications of salicylic acid compounds in rheumatism has long been demonstrated. An ointment containing salicylic acid was chiefly employed, or else the oil of wintergreen, but the former frequently caused intoxication and the latter was objectional on account of the odor. In mesotan, the methoxymethylester of salicylic acid, H. RÖDER (*Münch. med. Woch.*, Dec. 16, 1902) sees a long-felt want, since this combination is free from these objections. He has used it locally with marked success in rheumatism affections of muscles, joints and fasciæ, in influenza and arthritis deformans, and failure was only seen in the very chronic cases. It is good to dilute the mesotan with an equal amount of olive oil and the only bad after-effect which is liable to follow, is a slight dermatitis.

Effect of Hypnotism Upon the Circulation.—By means of sphygmographic tracings, Dr. BÉRILLON (*Jour. de Méd. de Paris*, Dec. 27, 1902) has studied the effect of hypnotic suggestion and simple hypnotic sleep, without suggestion, upon the normal pulse and upon that of patients affected with functional circulatory disturbances. In a normal subject, slowing and acceleration of the pulse was obtained by suggestion; and in a hysterical subject affected with tachycardia, distinct diminution in the pulse-rate was induced by suggestion. Under the influence of simple hypnotic sleep, without suggestion, marked improvement was noted in the pulse and heart-action of a subject suffering from a functional cardiac affection. The effect of hypnotic sleep upon arterial tension

was also striking; in those in whom the tension was above normal it was common to find an increase of more than 100 grams; while in subnormal tension the increase did not appear for some time, and it was necessary to prolong the sleep for several hours to obtain the best results. In cases of normal tension, the increase was even slower in appearing, and less marked. These effects could be produced only when the hypnotic sleep was rendered as nearly as possible like natural sleep; this being accomplished by repeated suggestions to the patient that he would sleep as quietly and restfully as though in his own bed, etc. Hypnotic suggestion was also effectively used in a case of hemianesthesia accompanied with subnormal arterial tension upon the affected side. Under hypnotic suggestion anesthesia was transferred to the opposite side, and with it the abnormal pulse appeared also upon that side.

Value of Cancroin.—Cancroin has been much lauded as a specific against carcinoma, and its discoverer has published many apparently convincing cures. J. DECKER (*Münch. med. Woch.*, Dec. 23, 1902) has employed it freely in several cases of carcinoma of the esophagus, stomach and intestines and in no instance has he seen the slightest benefit. In most the injections are well-borne and only once was the patient troubled with pains in the neighborhood of the injection and symptoms of collapse which disappeared rapidly with camphor. The true specific for this terrible disease has still to be found.

Adrenalin.—To test the efficacy of the commercial solution of adrenalin as hemostatic, D. LEHMANN (*Münch. med. Woch.*, Dec. 9, 1902) excised a portion of the liver of a rabbit and then applied cotton saturated with the solution to the raw surfaces. The hemorrhage did not cease but the animal recovered perfectly after the abdomen was closed. Probably the strong current of blood washed away the drug before it had an opportunity to act. When the solution was injected under the capsule and into the liver, even large pieces of liver could be removed without the loss of a single drop of blood. Though the liver again filled with blood in a short time, no bleeding occurred from the raw surface, owing to the formation of thrombi. A toxic action was never observed.

Creosotal in Croup.—The good results obtained with creosotal in diseases of the respiratory organs have tempted L. LASANSKY (*Deutsch. med. Zeitsch.*, 1902, No. 91) to try this drug in croup, with pronounced success. In one case a complicating pneumonia was checked at its onset and a favorable change in the croup itself brought about overnight. Two similar cases also improved rapidly, while some of those treated with serum died. The author now prescribes creosotal in pseudocroup, measles and pertussis, and is well satisfied with the results. At first a dose sufficiently large to cause the characteristic odor about the breath and perspiration must be used; when the fever falls, smaller doses are employed for some time to prevent a recurrence. As vehicle, the old-fashioned infusion of ipecac with anisated ammonia is excellent.

Use of Itrol and Cuprocitrol.—Washing the eyes with a three-per-cent. solution of boric acid and then dusting itrol into the conjunctivæ, forms an excellent treatment for gonorrheal ophthalmia. After a few applications D. CERVICKER (*Militärarzt*, 1902, Nos. 19 and 20) has seen the purulent secretion disappear in 65 per cent. of the cases, in the others, from 6 to 20 applications were required to cure the disease. The reaction which follows varies considerably with the susceptibilities of the different patients and on the whole is somewhat more severe than with the usual silver nitrate solution; on the other hand, itrol is easier to apply and has a more pro-

longed action. After a while, a tolerance is established, and the patients no longer complain. The results were also gratifying in discharging trachoma. Great care must be exercised to protect the drug from light, as it readily decomposes. The treatment of trachoma by means of massage with a five-per-cent. ointment of cuprocitrol must be regarded as another advance in ophthalmology, for astonishing results were obtained with cases of as much as eight years' duration. The massage must be gentle but thorough; it is best conducted with a glass rod.

Alkaloids of Ipecac.—In an elaborate article, C. LOWIN (*Arch. Internat. de Pharmacodyn.*, Vol. XI, fasc. 1 and 2) reviews the published literature on ipecac and adds his own observations on the physiological action of the different alkaloids. The toxic symptoms caused by cephalin hardly differ in any respect from those of emetin. Both alkaloids irritate the mucous membranes, hence many who come into intimate contact with the drug suffer from conjunctivitis, coryza and cough. The subcutaneous connective tissue is not irritated, since in none of the animals did inflammation develop at the site of injection. This proves a specific irritating effect of the drug upon the mucous membranes. Both alkaloids are cardiac poisons. The injected animals die of cardiac paralysis. Emetin injures the heart in much smaller doses than cephalin and affects more the frequency of contraction, while the latter exercises its influence more upon the pressure. The characteristic intestinal symptoms are caused by both, but cephalin acts more upon the kidneys. Part of both alkaloids seem to be excreted through these organs. Poisoning with emetin leaves the lungs free of pathological changes; with cephalin there may be slight extravasations of blood. Vomiting may be induced by both, whether given by mouth or subcutaneously, but cephalin is undoubtedly superior in this respect, while emetin is the latter expectorant. From the composition of the two varieties of the drug, it follows that Rio ipecac is to be preferred as expectorant and Carthagena ipecac as emetic; where, however, the patients are only allowed to gargle, on account of weakened cardiac action, the latter is also better as expectorant.

Toxicity of the Active Principle of the Suprarenal Glands.—It is now established that epinephrin is the active principle of the suprarenal glands and that chemically it is very closely allied to the commercial adrenalin, so that practically they may be considered alike. That adrenalin is not so harmless as its discoverer claims, is evident from the animal experiments of S. AMBERG (*Arch. Internat. de Pharmacodyn.*, Vol. XI, fasc. 1 and 2). Injected subcutaneously, intravenously, intraperitoneally or into the spinal canal, epinephrin in large doses causes repeated vomiting, excitement and general weakness, which may end in complete prostration, bloody diarrhea and death. The findings at autopsy are characteristic. Death may be caused by cardiac or respiratory paralysis or by both. The lethal dose lies between one and two milligrams per kilogram intravenously. The subcutaneous lethal dose lies between five and six milligrams, the intraperitoneal between 0.5 and 0.8 milligram. Since the human body is less resistant to the effects of the poison, the utmost caution should be exercised in the therapeutic use of suprarenal extract.

The Future of Electrotherapeutics.—No other department of medicine, either in this country or in the British Isles, is so ravished by the quack and the impostor. EDMUND OWEN (*Brit. Med. Jour.*, Jan. 3, 1903) in an address at the first anniversary meeting of the British Electrotherapeutic Society, said that there is something in the brass balls which glitter so attractively

and spit forth purple fire which does away with the common sense of the ordinary every-day Britisher. To this usually sensible person electricity is electricity. There is something mysterious and uncanny about it which leads him to suppose that his ills can better be cared for by a quack, who may too often come from the United States, than by a licensed physician. He detailed an experience of a friend of his who went to a prominent and exceedingly popular institution in London, devoted to the treatment of skin disease by Finzen's light and the X-rays. A man entered and asked for the physician-in-charge. "I am the nurse," said a woman, dressed in that garb, "and will care for you." She proceeded to treat him. He left and paid a guinea. I asked her what was the trouble with the patient. She replied, "That's lupus. I see so much of it I know it in a minute." She knew lupus, than which there is no more difficult lesion to differentiate! He urged upon the members the crying need of a central electrical institution which should be a sort of club-house where meetings could be held and where ordinary club-life could be maintained. More than this, it would help the younger members of the society, and indeed many of the older ones, if they had some such place where every known form of electrical device was free for their use at stipulated hours. There they could take their patients and treat them, for nurses should be in attendance throughout the day. It would be the most important step toward doing away with the power of the rogue and the charlatan who now take from the electrotherapist what is justly his. He declared that so important was this therapeutic agent that a section devoted to its development should be inaugurated as an integral part of the British Medical Association, and he hoped that such a section would be created at the next Swansea meeting.

Atropine in Intestinal Occlusion.—Although the cases of intestinal occlusion treated with injections of atropine after Batch's method, have not been sufficiently numerous to warrant positive deductions concerning the value of this method of treatment, the results obtained have been uniformly favorable in the cases reported, says V. FARRIS (*Gazz. Osped.*, Jan. 4, 1903). In illustration of its beneficent action, the author describes a case of occlusion in which he used the remedy after all other measures had failed, and operation seemed inevitable. Four injections of atropine one mm. were given at short intervals; and after the fourth, the patient passed a quantity of gas from the bowels, vomiting ceased and shortly after, a considerable amount of fecal matter was passed, accompanied with severe colic. A second stool soon followed, and the patient's distress was entirely relieved. The author urges the invariable essay of this remedy in all such cases, as it is prompt in effect, and, in the event of its failure to relieve, surgical intervention is not too long postponed by its trial.

Anuria Without Uremia.—The pathogenic relation between anuria and uremia would seem questionable, when cases of anuria without symptoms of uremia are taken into account. L. POLIDORO (*Gazz. Osped.*, Dec. 28, 1902) reports such a case in which there was no slightest trace of uremia after complete urinary retention during seven days; neither was there compensatory elimination by the other emunctories. No less an authority than Maragliano has chronicled the frequent occurrence of uremia when urinary elimination was of normal abundance; and a like experience has been reported by other eminent observers. In view of these observations, there seems to be ground for the belief that retention of excrementitious matter ordinarily eliminated by the urine, does not play the important part formerly attributed to it, in the pathogenesis of uremia.

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THE AMERICAN BIRTHRATE.

In the January number of the *North American Review* a very prominent woman advocate of women's rights has an article on the limitation of families from the standpoint of the right of the child to be born under circumstances that make life easy for it, or at least give it its full development as a human being. In answer to one of the objections to her theory she says: "It is insisted that people of means and education should have a large number of children, because the poor and ignorant produce so many, but does it help the latter to become desirable citizens to place over them a still greater number who are infinitely better prepared in every way for the battle of life? The immense reproduction of the lower classes is unavoidable, and instead of trying to outnumber them the better classes can more effectually serve society by having smaller families themselves and applying the surplus parental affection and care and the surplus time and money toward fitting those unfortunates for respectable and useful lives."

This is indeed altruism pushed to its farthest degree. It is beautiful in theory, but we doubt whether in practice any such refined transcendental motives will have any influence over men and women. They are only a mask for the sel-

fishness that refuses to accept the duties and responsibilities of parenthood, and pretends, perhaps even to itself, to make up for them by a display of voluntary benevolence.

An interesting commentary on talk of this kind is furnished by the statistics of the birthrate, as given by the last annual report of the registry department of Boston. Not since 1894 have so few children been born in Boston. In 1901 the birthrate was only 27.10. During the year there was an actual gain in population of only 4,275. The proportion of native whites of native parentage is now only 36 per cent. of the whole population, and many of these are but two removes from an immigrant ancestry. It is very evident that the old American stock is dying out and that it will inevitably be replaced by the newcomers of the end of the nineteenth century and the beginning of the twentieth. The foreign-born element constitutes about one-third of the population, but contributed about two-thirds of the births. Among the Italians there were 1,411 births, among the Russians 1,337, and among the Irish 3,591.

The highest birthrates in the city are found in those wards where live the poor and the foreigners. The lowest birthrates are found in the Back Bay and in the South End, in the middle of Roxbury, in West Roxbury and in Jamaica Plain. Three of these wards actually show an excess of deaths over births.

A weekly paper published in Boston says: "On the whole, Boston is a healthy town, but not particularly fruitful. Our people, by the help of parks, gymnasiums, boulevards, baths, health foods and common sense, manage to steer the middle course between McFadden and the doctors and postpone death with some degree of success, but many of them do not provide for a line of succession. This duty is left to a small minority of aliens, whose descendants must inevitably move into Commonwealth avenue when the present tenants are all in Mount Auburn (cemetery)."

This was not the way of the Puritans, who did so much to make our country what it is. Priscilla Mullens, of the unromantic name but romantic fame, had a vigorous family of eleven children. Most of the Puritan families whose descendants have become distinguished in the history of this country were of large size. It is not the meddling coddling care so often given to the one or two children of a small family that serves to bring out character and make worthy men and women. No better training can possibly be pro-

vided for children than that which comes naturally and in due course in the midst of brothers and sisters.

There is some truth in the statement that the American national problem will soon be, if it is not already, the same that is facing the French people, namely, of depopulation. We would at the present moment be already depopulating if it were not for immigration and the birthrate among immigrants. It begins to look as if the highest form of patriotism would be the raising of distinctly American families whose members shall serve to perpetuate the traditions of past generations. Certainly none of the lofty philanthropic purposes assumed, as the self-satisfying aims of the new woman, are near as likely to prove so fruitful of good for this country as the plain duty of providing and training a numerous generation of true Americans whose nationality is the birthright of long years, not a recent acquisition. Physicians, whose influence in such matters is apt to count for much, should themselves realize this fact and let no lower motives interfere to make the true principles of the problem clear to those who seek advice.

A LATER INTERPRETATION OF CZOLGOSZ AND HIS CRIME.

IN the loom of history facts are fashioned at will, but single events must always carry the stamp and color of the hour of their making. The public, the alienists, and the pathologists all concurred that Czolgosz was sane. He was an anarchist who knew the nature and consequence of his acts and was proud of his awful success. Granting that he was insane it seemed even permissible to some that such as he should die in consequence of his crime. However this may be, no adequate evidence until the present time has been forthcoming to show that Czolgosz was insane. Indeed the very nature of the hasty trial, the suppressed and determined hatred of the nation urged swift and quick action. But now we may review the evidence somewhat more calmly.

This work has been signally performed by one of our most able alienists, Dr. Channing, in the current number of the *American Journal of Insanity*. Certainly the evidence presented by Channing controverting that Czolgosz was an anarchist coincides with the facts unearthed since the execution by the most earnest search of capable experts. There seems to be no adequate ground for believing him connected with such a

party of disorganization. This practically substantiates Czolgosz's own statement in the matter. The gradual change in Czolgosz's life from one of industry and cheerfulness to that of idle and moody consideration of the "people's" wrongs appeared to pave the way for the unbalancing of an intellect never strong and hereditarily handicapped by a weak but not necessarily vicious family stock. The desire of doing some great act to relieve the pressure of human woes ripened his predisposition to mental alienation and he attempted the futile method of reform common to his class in a successful magnicide.

After arrest Czolgosz never posed as an insane man as Guiteau and cunning paranoics of his type have done before and since. On the contrary he weighed his remarks well after the crime as though "keeping back something." This "something" led many to think that a plot was in hiding, but Channing sees nothing in this but evidence of a disordered mind which after a time might have developed and amplified itself into the possession of well-systematized delusions; on the other hand it might never have developed fully in typical paranoia, but degenerated instead into terminal dementia.

Probably one of the grossest absurdities of modern mental science was that of attempting to prove Czolgosz's sanity or disproving his insanity by presence of stigmata of degeneration and gross or even microscopical findings of the brain tissue after execution. This was attempted, too, in a day when even the physiologists and psychologists are still uncertain whether states of consciousness in this totality (mind) are not really made up in great part from the integrity of the different levels or neuron orders of the entire central nervous organs rather than in the cerebrum alone. There are still many types of insanity in which no characteristic morphological or histological changes are in evidence even by our most modern technic, and prominent in this class are the paranoias, or monomaniacs and kindred mental disorders of degenerative type in which there is a lack of mental development; where insufficient evolution is at fault and not involution.

The summary of Dr. Channing's collection of data is irrefutable and his conclusions are worthy of serious thought; in brief they are as follows: "(1) I feel that from fuller information than that possessed by those experts who examined Czolgosz after his crime, the opinion then expressed by them cannot be accepted as the final one; (2) owing to lack of time it was impossible,

in the examination referred to, to investigate the early history of Czolgosz. Had this been done some of his statements would have been found to be inaccurate; (3) he was not in my opinion an anarchist in the true sense of the word, and while anarchical doctrines may have inflamed his mind and been a factor in the crime, it was not the true cause or an adequate explanation; (4) he had been in ill health for several years, changing from an industrious and apparently fairly normal young man into a sickly unhealthy and abnormal one; (5) while in this physical and mental condition of sickness and abnormality, it is probable that he conceived the idea of performing some great act for the benefit of the common and working people; (6) this finally developed into a true delusion that it was his duty to kill the President, because he was an enemy of the people, and resulted in the assassination; (7) his conduct after the crime was not inconsistent with insanity; (8) his history for some years before the deed; the way in which it was committed and his actions afterward furnish a good illustration of the typical regicide or magnicide as described by Regis; (9) the post-mortem examination threw no light on his mental condition and would not invalidate the opinion that the existing delusion was the result of disturbed brain action; (10) finally, from a study of all the facts that have come to my attention, insanity appears to me the most reasonable and logical explanation of the crime."

If one grants the conclusions of Channing, the legitimate question is: How much or to what extent did the ends of justice miscarry in the case of Czolgosz?

THE TRIUMPHAL TOUR OF ADOLF LORENZ.

The editor of the *Cosmopolitan* has published in the February number of that magazine, two columns of sincere tributes, under the above heading, in which a few misstatements are made, which, in justice to Dr. Lorenz, should not stand uncorrected.

The way in which he came to devote his energies exclusively to orthopedic surgery lay in the fact that the antiseptics necessarily used in open operations set up a dermatitis of his hands and arms. That was why "voluntarily he closed the door upon his own career," and not because he had said to himself: "I cannot pursue these formulas longer and be honest."

The "ray of divine light—the idea of a new surgery which should not carve and butcher"—

came to him from the man whose assistant he had been in the operative work which Dr. Lorenz was most loath, but forced to give up. It was suggested as a field which his idiosyncrasy for antiseptics would not deny to him.

Dr. Lorenz made great strides in this branch of surgery and has helped to raise it to a higher level than it has ever occupied before, but Mr. Walker makes an idiotic mistake when he says that the world went on its stupid way until one day a rich American offered a large sum of money for this surgeon to come and operate upon his daughter. The medical profession of the United States would indeed be stupid did it wait for teachers to come here and demonstrate any advances they may have made. It is not the nature of the American, either in a profession or in a business, to do the waiting. The American doctor hustles as strenuously as his fellow-citizen. It is not too much to assert that we know of every new method of operation and every new form of examination and treatment advanced by a foreign physician or surgeon as soon as the closer associates of the discoverer or inventor. Every day in the year Americans are earnestly studying in every large medical center of the world. Many of the 255 medical journals published in this country have special correspondents, not only throughout Europe but in the Orient as well. The cables, together with the mails, are employed to keep the American physician abreast of the progress of medicine in all its branches the world over.

The best known operation of which Dr. Lorenz was the originator, has been practised in this country for many years and with excellent success, in fact, in large measure, it had its origin here.

The greatest good to the public, from his tour of this country, lies in the fact that it has excited an interest, such as nothing else could have done, in the great number of deformed children we have in our midst and the amount of good which can be done for them. Chiefly through the newspaper accounts of Dr. Lorenz and his work, charity has been awakened to an interest in these pitiful cases so long neglected by the public. Our surgeons have been laboring for years to obtain the interest of our legislative bodies and our philanthropists in these children, who can be made useful citizens, but, neglected, must ever be a burden to the State.

It would have taken a decade longer to attract such public notice to this field of work, as has

now been brought to it by the visit of this most eminent Viennese surgeon.

It was a triumphal tour, but let us have the plain, simple truths—surely Dr. Lorenz would wish it.

THE GROWING HISTORICAL SPIRIT.

THE progress of medicine in America during the past quarter of a century has been like the onward rush of mountain climbers who blaze a path through the unbroken forest to the untrodden heights that they have seen above. A more exciting, breathless, expectant quarter of a century than the last has never been passed in the history of medicine, and it is small wonder that the men who have been pressing up the steep incline have had little time or opportunity to turn around and view the past. But it is a sign of the heights attained that there is a tendency among the climbers to take a moment's rest and look at the healing art in a wide-eyed philosophical way, and to review the steps by which they and their forerunners have risen.

There has been an occasional history of medicine and an occasional stimulating biography of a physician, but literature as such has not been greatly enriched by medical lore among us. Occasionally a twin genius has been born in one body, as in the case of Oliver Wendell Holmes, or S. Weir Mitchell; but even they have contributed more to literature from the standpoint of the poet and novelist than from that of the physician.

We note, however, with pleasure, the growing spirit to make a place for medicine in American literature. In 1898 a few physicians in New York City of literary tastes organized a club among themselves for the purpose of devoting a few hours a month, by way of recreation and profit, to the study of literary, artistic, and historical aspects of medicine. They called themselves the Charaka Club, choosing the name of one of the "ancient trio" of Hindoo sages, indicative of the philosophical and antiquarian nature of the club's work.

Some of the literary material brought together in these meetings has lately been printed in a finely finished book, of which the Club has issued a too limited edition for its members and friends. There is a charm in the style and finish of such papers as the one on Hindoo medicine by Dr. B. Sachs and the Cult of Æsculapius by Dr. Charles L. Dana that is very refreshing, especially when one realizes that nowhere in American literature could one find anything that would give a vivid

conception of the beginning of medicine as embodied in these papers of ancient medical lore in India and in Greece. The collection of pictures of the busts and statues of Æsculapius is excellent, and the reproduction of the Heiron or Sacred Grove with the Temple of Æsculapius, to which the pilgrims used to flock, and the Sacred Well, with its forty-pillared Tholos, gives one an architectural thrill that is wholly unknown in these days of atrocious hotel and pavilion structures that cluster about our modern Spas.

Among other contributions to the proceedings of the Charaka Club, more modern in their subject, but none the less literary in their handling, are three little poems by Dr. Frederick Peterson called Heredity, Environment, and Solitude. They touch the facts of science with the imagination of the poet, and read a deeper meaning into the titles than one can find in the text-books.

Contemporaneous with the publication of the Proceedings of the Charaka Club, is a new journal entitled the *Medical Library and Historical Journal*. It is to be devoted entirely to medicine in its literary aspect and it opens with an excellent number of contributions, chief among which is an article on the Medicine and Doctors of Juvenal, by Dr. Eugene F. Cordell. In its editorial introduction it purports to supply to medical historians, librarians and bibliophiles an exclusive medium of intercommunication.

The awakening of interest in medical history is apparent in many directions. The simultaneous appearance in print of the *Charaka Club Proceedings* and of *The Medical Library and Historical Journal*, is but the crystallization of a widely diffused spirit. The reception of the various historical articles that have appeared from time to time in the *MEDICAL NEWS*, the history of the growth of the American medical colleges, the biographical articles on old New York medicine, and the By-Ways of Medical Literature, indicates the desire of the busy man to relax himself a little within the bounds of his own profession.

ECHOES AND NEWS.

NEW YORK.

New Appointment.—The Lunacy Commission has just appointed Dr. Carlos F. Macdonald as Consulting Physician to Manhattan State Hospitals.

Yellow Journalism and Bellevue.—Some recent criticism of the Gouverneur ambulance service has gone amiss as usual. The yellow daily press described another case of what they considered the ambulance surgeon's neglect, which turns out that the patient had

died in the station house before the arrival of the ambulance.

Cholera Infantum Serum.—Commissioner Lederle of the Health Department reported last week that the Department hopes to have a serum for cholera infantum ready for the coming season. The loss of infant life from this disease is deplorable. The bacillus described by Dr. Hiss in the last issue of the *MEDICAL NEWS* is being worked with, with the hope of developing a serum.

Ithaca's Epidemic Subsiding.—The tenth case of death among students of Cornell University in the typhoid fever epidemic which has prevailed, has occurred. Only a few new cases were reported last week, which shows that the epidemic is subsiding. According to figures given out from the president's office, 21 per cent. of the student body, or about five hundred students, did not attend classes last Saturday. Of these four per cent. are ill in Ithaca. Practically all the rest have gone to their homes. Many more left at the completion of to-day's work. A roll of the instructing staff of the university shows ten professors and instructors ill with the fever.

City Tuberculosis Camp.—The Board of Health is reported to be considering the feasibility of establishing a "tuberculosis camp" somewhere in the State and within 50 miles of this city. The subject was discussed briefly at the regular weekly meeting of the board last Saturday. The tuberculosis committee of the Charities Organization Society has advocated a large hospital outside the city limits for the treatment of consumption. It was estimated that the cost of such a hospital would be in the neighborhood of \$400,000. The Board of Health decided that, in view of the fact that the hospital would be an experiment, the cost would be too great, and set about finding other means for the treatment of the disease. The "tuberculosis camp," Dr. Lederle explained yesterday, would cover about 100 acres on high ground. On this ground would be erected a hundred or so tents, of a substantial kind, and costing about \$100 each. The tents would be fitted out with floors and stoves so as to be comfortable in cold weather. As outdoor exercise is one of the chief ways of treating consumption, it is believed that the tents would be even better than a large building. The cost for the camp would be about \$70,000, or \$80,000. Estimates of the cost of the land and camp will be made in a few weeks and the plan submitted to the Mayor. If he approves, the matter will be laid before the Board of Estimate, and if the money is granted the camp will be opened as soon as possible.

Care of Dull Children.—Prof. Earl Barnes, speaking under the auspices of the Child Study Committee of the Associate Alumnae of the Normal College, on the subject of "The Training of the Dull Child," said that until recently the physically deformed children had been scattered throughout the body politic, and it was only in recent years that they had been segregated and given special treatment. Just now England, Germany, and the United States were taking out for treatment from the people a group of those who were not dangerous, with a view of saving some. Defective children might be divided into three groups: First, those with physical defects, such as hip diseases and similar deformities; second, the deaf, dumb, and the blind; and third, those who were defective mentally, the epileptics, imbeciles or idiots. Of the first group it had been found that there was often no weakening of the mental or moral powers, but, on the contrary, some of these deformed persons had great brain power. These physical defects, it had been proved, could often be cured. The lecturer described the work in a London school, where deformed and crippled children were taken each day,

an ambulance being provided to convey them from and to their homes. They were children of the very poor and their lives were being rescued from misery. New York city should have such a school, he said. Of the mentally deficient, Professor Barnes said that returns show that there was at least one per cent. of the elementary school children who should receive special care. In London such work was being done systematically in fifty special centers, and he had met Dr. Warner, who had examined 120,000 more or less defective children. Although education was the biggest business in the United States, there was not a single specialist scientifically studying children. There were specialists in every other business, and more money was being spent by the Government in studying codfish and mushrooms than in studying children. Five thousand defective children could be found in New York city, yet nothing was being done for them. Many of them could be benefited by medical treatment, and medical men should be allies of the teachers in all this work. The simply dull should be separated from the imbeciles. The latter should be placed in colonies, there to remain forever. In such colonies they could be watched by the police officers of the nation, studied by scientific students, and cared for by the philanthropic. For the dull and defective the resources of civilization should be lavishly expended. Special teachers should be hired and they should be in attendance all the time. Classes should never exceed ten or twelve, and the teachers should be free from any kind of curriculum. They must possess the children, body, soul, and mind, and must infuse their own soul and mind into them. Such a work was one of co-partnership with God.

The Side of the Street.—The *New York Times* has an interesting commentary on a recent paper by a New York physician, which we quote in part: Dr. Alfred E. Thayer of the Cornell University Medical College rises from a prolonged study of mortality statistics with the conviction that if a New Yorker wants to die he ought to live in a house on the north side of the street. Dr. Thayer chose for his demonstration the year 1895—it is astonishing that he overlooked the fact that in that year there were three eclipses of the sun and two of the moon—and made twenty streets, from Fourteenth to Thirty-third, the basis of his lugubrious researches. The total population of these side streets at that period of the city's history was 170,747, there being 84,259 on the south and 86,482 on the north side of the street. In the year mentioned there were 1,869 deaths in houses on the south side of the street, and 2,104 in houses on the north side, being equivalent respectively to a mortality rate of 22.18 and 24.33 per thousand. The showing of these figures is supported by Dr. Thayer with theories and reasoning quite sufficient to educe further statistical confirmation of his argument through deaths from fright among families dwelling in houses upon the fatal north side of the street, while his article is likely to lull the south-side population into a sense of security which may prove to be false. But Dr. Thayer's statistics are suspiciously incomplete in several branches of the interesting inquiry. For instance, he says nothing about broken legs. Everybody knows that there are about three times as many cases of broken legs on the south side of the street as on the north side—in 1895 the percentage for the whole city was, to be accurate, 65.08 for the south siders and 22.11 for the north siders. The disparity, of course, arises from the fact that accumulations of ice and snow on the south side steps and sidewalks do not "get the sun." Upon certain essential factors in a calculation of this nature Dr. Thayer is wholly silent. While it is probably true that in the year chosen for his demonstration the death rate was higher in north-side

houses, the investigation is woefully incomplete without a statement of the controlling reason, which is to be found in the careless habits of the people. The lamented Hasenbraten, whose distinguished but ill-requited labors in medical science have won for him the tardy reward of world-wide recognition of his high authority, has recorded the results of deep study of this subject in his great work, "Die Entstehung und Jagd der wilden medizinischen Gans." Dr. Hasenbraten proved beyond possibility of dispute that families whose names begin with "S" should never live in odd-numbered houses. The statistics give overwhelming support to his doctrine, and it is, no doubt, due to wilful neglect of this simple precaution on the part of the incalculably numerous Smith family, that has led to the conditions of mortality noted and deplored by Dr. Thayer. In a short period of three years, during which a family with this initial lived on the north side of Thirty-fifth street, there were three deaths in the house—one from falling down stairs, one from a railroad accident in Ohio, and one as the result of an encounter with footpads in Astoria. Contrariwise, another family bearing the same name lived upon the south side of the same street for thirty years without a case of illness, and the first death occurring in the family was the result of moving to Harlem. The demonstration is quite sufficient to establish the fatal relation between the initial "S" and odd-numbered houses. It is in the interest of owners of real estate on the north side of New York streets that we point out the omissions in Dr. Thayer's statistics and reasoning.

PHILADELPHIA.

Lecture by Dr. Cushing.—Dr. Harvey Cushing of Baltimore was the guest of honor at the annual banquet of the W. W. Keen Surgical Society of Jefferson College, held on February 12th. Preceding the banquet Dr. Cushing gave a lecture in the college on "The Blood Pressure Reaction of Acute Cerebral Compression, a sequel to the Mütter Lecture."

Medico-Chirurgical Hospital Damaged by Explosion.—A hot water generator in the basement of the Medico-Chirurgical Hospital exploded during the early morning of February 12, causing a great deal of damage to the building, but fortunately slightly injuring only one patient. The floor of the rotunda, under which the tanks were situated, fell into the basement. The excitement incident to the explosion was soon allayed by the nurses and physicians. The building will be repaired at once.

Plans for New Municipal Hospital.—Bids for the construction of the new municipal hospital are being received, the sum of \$150,000 being available. The plans provide for a Colonial building 200 by 150 feet in size. The structure is to be absolutely fireproof and provided with every facility for disinfection. There will be two large wards each 150 by 35 feet and a dozen smaller wards for isolation of patients with other diseases in addition to smallpox. The building will be heated by hot air on the ventilating system.

Why Smallpox Prevails.—The Health Convention held at Johnstown, Pa., February 12th, discussed the question "Whose Fault Is It?" referring to the prevalence of smallpox in Western Pennsylvania. Enforced vaccination was advised. Dr. Benjamin Lee, Secretary of the State Board of Health, said in part: "We shall find that the responsibility for this unfortunate and disgraceful condition may be widely distributed. The fault lies, first, with the medical profession, for discontinuing the practice of infant vaccination; second, with foolish mothers who wanted to save their babies the slight pain and annoyance that accompanies vaccination; third, with a class of ill-informed obstructionists, tilting them-

selves antivaccinationists, who have endeavored in every possible way to throw discredit on vaccination; fourth, with many of the School Directors of the State, who have neglected or refused to enforce the compulsory vaccination law; fifth, with an immense majority of the school boards of the State in the country districts for neglecting to accept the responsibility placed upon them by act of legislature of organizing as boards of health; sixth, with the medical colleges, for failing so to instruct their students that they might be able to recognize the disease."

Dr. Flexner May Leave University.—The medical school of the University of Pennsylvania is probably about to lose one of its most prominent and valued professors in the person of Dr. Simon Flexner, professor of pathology, who has been offered the directorship of the Rockefeller Institute, in New York. For the past two years Dr. Flexner has been one of the several scientists among whom the income of the Rockefeller endowment for original research has been distributed for work in laboratory and hospital. Now he has been called to take charge of the whole system in order to plan and organize the experiments. When seen last week Dr. Flexner refused to say whether or not he had accepted the proffered leadership of what is one of the greatest institutes of modern science. Several of those who stand in close touch with university affairs expressed their opinion that the University would soon be looking for a new pathologist. On the resignation of Dr. John Guiteras from the chair of pathology, at the University, Dr. Flexner, who was then at Johns Hopkins, was selected by the Board of Trustees to fill the vacancy. He accepted the position and has since headed the pathological work at Pennsylvania. One of the foremost men in his profession, Dr. Flexner has been especially successful in his study of the problems of immunity. He was one of a board of three physicians appointed by the Government to investigate the bubonic plague on the Pacific coast. During the last year Dr. Flexner's work for the Rockefeller Institute for Medical Research has been along the line of experimentation with snake poison.—*Phila. Press.*

Nephropexy in a Case of Chronic Nephritis.—This case was reported by Dr. J. Norman Henry at the Philadelphia County Medical Society, February 11th. The patient was a laborer, aged twenty-four years. Two months before admission marked symptoms, as dyspnea, edema, disturbances of vision, etc., were noticed. On admission, examination of the eyes showed white patches of degeneration and punctate hemorrhages. The urine had a specific gravity of 1,009, the urea was one per cent., and there were present albumin, hyaline and granular casts, and red blood cells. Treatment was inefficient and operation was performed by Dr. Gibbon. The left kidney was large and very adherent to the fatty capsule. The right was less adherent. The capsules of both organs were stripped, though the autopsy apparently showed that this was not entire in the case of one of the organs. The operation lasted 55 minutes. Following this the urine was further reduced, albumin was present in large quantities and the patient suffered intense pain, finally dying on the eighth day. The kidneys together weighed but 320 grams. The case in brief was that of a young man suffering from chronic nephritis who died from severe pain and exhaustion and uremia following disturbance of the kidneys by operation.

The Irrigation Method as a Means of Aborting and Treating Acute Specific Urethritis.—Dr. Orville Horwitz reviewed the history of the irrigation method of treating acute urethritis and made an emphatic protest against its employment. The average practitioner

of medicine has but little chance to observe large numbers of cases of urethritis, and the results that follow certain lines of treatment and must be guided to a large extent by the opinions and experience of specialists. Hence the evil results that may accrue from the advocacy of this method by some who are considered authorities on the subject. The abortive treatment of these cases is rarely possible because they are not seen in the incipient stages. The method never appealed to the speaker with favor on theoretical grounds. The organism is not reached and over distention of an inflamed organ is caused thereby. A thorough trial of the method, however, was given at the clinic of the Jefferson Hospital where about 715 acute cases are seen annually. A large number of cases were thus treated and the method finally abandoned as unsatisfactory and dangerous. Irrigation of the posterior urethra and bladder should be used only in cases of chronic urethritis and should then be performed by experts. The statement was made that practically no progress in the treatment of acute specific urethritis has been made during the past nine years. The prediction of a marked change in treatment within the next ten years was also made.

A Case of Bubonic Plague.—Dr. Judson Daland gave a brief clinical history and the autopsy findings upon a case of bubonic plague occurring in a native Hawaiian woman during 1902. There was gradually rising temperature and increasing abdominal distention. On the fourth day of the disease enlargement of the left inguinal glands was noticed, this increasing until death on the sixth day, the temperature having reached 108 degrees. Autopsy two hours afterward showed nothing of importance in the thoracic and abdominal cavities except the spleen which was four times its normal size. The temperature of the organ in its central part was 108 degrees. Smears from the enlarged gland showed great numbers of the plague bacilli. A rat caught in the house was thoroughly examined but nothing abnormal was found. The diagnosis in the case was made from the fever, adynamia, delirium, and enlarged lymphatic glands. This was proven when the characteristic bacilli were found in the glands, feces, blood, etc., of the patient. The prognosis is considered unfavorable by the physicians in the islands referred to when the organisms are found in the blood. Prognosis is comparatively more favorable when bacilli are found within the leukocytes contained in serum from the involved glands. Haffkine's serum was used in thousands of cases until seventeen deaths from tetanus occurred. This caused discontinuance of the serum before conclusive results were obtained.

Bacteriological Examination of the Blood.—At the meeting of the Pathological Society of Philadelphia held February 12, Dr. R. C. Rosenberger reviewed the more recent methods of conducting bacteriological examination of the blood and reported ten cases of various types of disease. The method used by him is Coplin's modification of that of Sittman. The lower part of the arm and the forearm are scrubbed with soap and water, followed by sterile water, and sixty per cent. alcohol. A sterile gauze dressing wet with hot 1 to 1,000 aqueous solution of corrosive sublimate is then applied for 24 hours. When this is removed at the time for examination, the parts are washed with alcohol and ether followed by sterile water or normal salt solution. The median vein is then made prominent, cut down upon and a large hypodermic needle or a trocar and canula inserted. As much as 20 c.c. of blood should be removed in some cases, certainly not less than 5 c.c. in any case. The blood is plated, inoculated into all culture media, and spreads are made. The blood is also inoculated into animals. Dr. Rosenberger's cases included two of

scirrhus carcinoma, two of malignant endocarditis and one each of sarcoma of the ribs, enteric fever, thrombo-phlebitis, puerperal septicemia, salpingitis, and an obscure undiagnosed case. Bacteria were found in only four of these cases, the *Staphylococcus pyogenes albus* in the two cases of scirrhus, the sarcoma of ribs (after operation), and one case of malignant endocarditis.

CHICAGO.

Officers of the Chicago Ophthalmological and Otological Society.—At a recent meeting of this Society, Dr. Chas. H. Beard was elected President, and Dr. Brown Pusey reelected Secretary.

Resolutions on Child Labor.—The following resolutions were adopted by the Physicians' Club, at its recent meeting, and were recommended to the Chicago Medical Society for a similar disposition: Whereas, the employment of children in bread-winning occupations and the detention from school is inimical to the hygienic as well as to the moral welfare of the community; and Whereas, the effectiveness of statutes designed to regulate and control child labor is a matter of special interest to the medical profession, therefore, be it Resolved, that the Physicians' Club commends most heartily the effort inaugurated by the Industrial Committee of the Illinois Federation of Women's Clubs to secure such amendment of the existing statute in reference to child labor as will make it effective. Resolved, that the members of this Club use their influence collectively and individually to secure the passage of the child labor bill.

Influenza.—This disease is not taken seriously enough by the laity. While uncomplicated influenza is not usually a fatal malady, its malign influence in complicating or developing other diseases—especially consumption, pneumonia, Bright's disease and heart diseases—makes it one of the most dreaded by health officers. No case of influenza, however mild, should be neglected or treated lightly, when its infection is as widespread as it is at present. It should be neither fought off nor self-treated. The patient should put himself in the hands of his physician at once and follow instructions implicitly.

Bill for the Establishment of an Epileptic Colony.—A bill has been introduced in the General Assembly, providing for the creation and establishment of the Illinois State Colony for Epileptics; also a bill for the location, erection, organization and management of a State sanatorium for persons afflicted with tuberculosis.

Annual Report of the Secretary of the State Board of Health.—Dr. James A. Egan, Secretary of the State Board of Health, in his annual report, announces that with the exception of \$1,200 a year paid to W. A. Shaw as an investigator, all of the payments to special attorneys made by the Board have come out of fines collected from violators of the law after prosecution by those attorneys. The practice of the Board is to allow its special attorneys as fees all money collected as fines in consequence of prosecutions by them, they paying all costs. Thus, the attorney for the Board in Chicago collected in fines from violators of the medical practice act, from June 1, 1901, to January 10, 1903, \$6,210.83. Of this amount, he paid out in court costs, to investigators, agents to secure evidence, office rent, clerk hire, and other expenses, \$3,997.28, leaving \$2,213.55, which he was allowed to retain as fees.

Prevalence of Smallpox.—Smallpox has been found during the week in all quarters of the city, and in most of the cases the source of the contagion could not be traced. Dr. Spalding, Chief Medical Inspector, says: "The pest is attacking unvaccinated children under the school age of six years. Parents are careless about getting children vaccinated before they are compelled

to do so, when they present them at school. There are five children in the Isolation Hospital under six years old."

Organization of a New School for Nurses.—A new school for nurses will be organized by the Presbyterian Hospital, with a three years' course. Lectures will be given to the nurses by members of the visiting staff of the hospital, and by the Faculty of Rush Medical College.

CANADA.

Campaign Against Tuberculosis in Montreal.—The executive committee recently appointed in Montreal in connection with the Montreal League for the Prevention of Tuberculosis, met last week and received the report of the Special Committee composed of Dr. A. J. Richer, Dr. J. G. Adami and Mr. C. M. Holt, who were appointed to lay out a plan of campaign. At this meeting Dr. Richer was appointed permanent Hon. Secretary of the League. Dr. Laberge, the Medical Health Officer of Montreal, has promised to recommend to the City Council that financial assistance be given the League. Briefly the report of the subcommittee outlined an educative plan of campaign, setting forth the dangers of tuberculosis and how these may be combated; and to afford assistance to those suffering from the disease. The distribution of literature will be undertaken and the Provincial Board of Health through Dr. Lachapelle has promised to cooperate with the League in this particular. A subcommittee was appointed to procure and prepare leaflets, to arrange to supply material and notices for the public press and the giving of popular lectures both in French and English and more particularly in the poorer districts of the city. A permanent working officer for the League will be appointed, a dispensary opened especially for cases of lung tuberculosis, a small home for incurable cases will be established, and a sanatorium or sanatoria established at an early date. To gain funds, members will be admitted at \$1 per annum, and contributions will be solicited.

The New Medical Building of the Toronto Faculty of Medicine.—A deputation waited on the Premier of Ontario last week from the Medical Faculty of the University of Toronto to ask for a further grant of \$50,000 to finish and equip the new medical buildings now nearing completion in the Queen's Park, Toronto. The original sum of \$125,000 has been found inadequate and the Medical Faculty seeks to borrow another \$50,000. This building when completed will be the finest type of modern college building on the North American continent. It has been constructed on the "Unit System," the standard size of the class-rooms being 23 by 30 feet. The lecture rooms are supplied by a number of "research" rooms in which students can carry on independent investigations. It is the first university building to be constructed on this unit principle since it was laid down. Toronto University now has the largest number of medical students of any Canadian university, even leading McGill, which for so many years took first place. There are at present 420 medical students on the rolls.

GENERAL.

Influenza in Italy.—Influenza is raging in Italy, especially in Padua, where 15,000 cases have recently been reported.

The Microbe of Hydrophobia.—At the last meeting of the Milan Medical Society, Prof. Somani of the University of Pavia announced that he had succeeded in isolating the bacterium of hydrophobia.

Cholera in Palestine.—There have been no new cases of cholera in Jaffa since December 27; though the disease is still epidemic in Nablous and in several of the

small villages to the north of Jerusalem; the latter having, thus far, been spared the scourge.

The Plague in India.—From April 26 to October 4, 1902, 127,340 cases of plague, with 98,579 deaths were reported in India. In the province of Bombay alone there were, in one week, 10,861 cases and 7,903 deaths. The efforts of the English to make general the treatment by injections of antiplague serum have received a check through the unfortunate use of an inferior quality of serum, which caused more than 20 deaths in a village near Gujerat. Needless to say, the natives are more than ever opposed to the antiplague injections.

Subcutaneous Injection of Olive Oil.—Such injections with a specially-devised syringe are said to have been successfully used by Drs. Fornaca and Micheli of Turin, for the purpose of increasing nutrition and weight. From 50 to 200 gm. were injected, and a noticeable increase in weight and improvement in the general condition were seen in the five patients so treated; absorption of the oil being much more rapid when this method is used than when given by mouth.

Harvard's Medical School.—Treasurer Charles F. Adams, 2d, of Harvard University, says that work will begin soon on the proposed Harvard medical school buildings in the Back Bay Fens. The architects are completing the plans, several changes having been found necessary, since the project was first planned for.

The Rotch Memorial Hospital.—The Infants' Hospital, in memory of Thomas Morgan Rotch, Jr., of the class of 1901, to be erected in connection with the new Medical School buildings, is designed to be the most complete of its kind in the world. It will accommodate fifty patients, allowing for each bed an unusually large amount of room and air space. Within the hospital will be a memorial laboratory, equipped by gifts from members of the class of 1901, for the scientific study of infants' diseases.

For Original Research.—The Carnegie Institution has made five grants of money to Johns Hopkins University men for original researches. Four of these were announced by Dr. Ira Remsen this afternoon.

To Dr. Harmon N. Morse, professor of analytical chemistry, \$1,500, to enable him to maintain during the coming year a competent assistant in his researches upon the new method which he has evolved for the measurement of osmotic pressures. Dr. Joseph C. W. Fraser will be named as the Carnegie assistant.

To Prof. R. W. Wood, whose researches in several departments of physical science have attracted attention, \$1,000, to maintain a research assistant in his work. He has appointed Mr. Thomas Sidney Elston.

To Dr. H. C. Jones, one of the pioneers in the new physical chemistry as it is studied in America, \$1,000, for an assistant in his researches. Frederick Hutton Gatman of Stamford, Conn., will receive the appointment. To Dr. J. J. Abel, professor of physiological chemistry, \$1,000, for the purchase of apparatus necessary to his researches. It is reported from Washington that Dr. J. B. Whitehead, one of the associates of Prof. Ames in the physical department, has received a liberal grant to carry forward a piece of research of unusual interest.

Biochemisches Centralblatt.—The great strides made in medical chemistry and in those fields of medicine verging on chemistry necessitated the publication of a central organ. This is now published in Berlin by Carl Oppenheimer, under the direction of Ehrlich, Fischer, Kossel, Liebreich, Muller, Proskauer, Salkowski and Zuntz, and they have appointed Heinrich Stern, of New York, editor for the United States and Canada. The object of the publication will be: (a) To report such experiments and observations of physical and employed chemistry which are of importance to the

physician; (b) Reports on the physiology of plants; (c) Physiological chemistry in the narrower sense (constituents of the body and their derivatives); (d) Chemistry of the tissues and organs under normal and pathological conditions; (e) Chemistry of digestion, secretions and excretions, metabolism and blood; (f) Ferments and fermentations, toxins of non-bacterial nature; (g) Chemistry of the pathogenic micro-organisms (toxins, antitoxins), phenomena of immunity; (h) Toxicology and pharmacology; (i) Hygienic chemistry, disinfection, examination of water. As this is the only international organ devoted to these scientific fields, American observers and investigators will find it to their interests to prepare abstracts of their papers which have appeared since Jan. 1 and will appear hereafter, and send them to Heinrich Stern, 56 East Seventy-sixth Street, New York City.

Hopkins Hospital Trustees Contract for New Surgical Building.—Plans for the new surgical building for Johns Hopkins Hospital have been finally approved and accepted by the board of trustees, and the contract for the work has been awarded to Mr. John Cowan. The cost will be about \$125,000 and the work of construction will be commenced as early as possible. The new structure will be five stories high and the material brick and stone. It will be erected at the western end of the existing block of fine buildings fronting on Monument street and is intended to give ample accommodations for the increased general surgical work of the hospital. The basement floor, which is to contain the orthopedic department, will be left unfinished for a time. The first floor will contain reception and examination rooms, a large lecture room, class rooms and operating rooms for surgical dispensary and for accident cases. Other floors will contain preparation, treatment and recovery rooms for special work, class and lecture apartments, private and general operating rooms, lecture rooms for the medical department, reception and examining rooms, private and general photographic rooms and space for X-ray treatment for the medical department.

Obituary.—Dr. James M. Ridge died last week in Camden, N. J. He was seventy-six years of age, and was born in Bucks County, Penn. He was a graduate of the University of Pennsylvania, and was connected with the State Board of Health for several years.

Dr. Morrill Wyman, died at his home in Cambridge, Jan. 20, age ninety years, after a brief illness. He was the oldest medical practitioner in the State, having been continuously engaged for about sixty years. In the early part of his professional life he invented an instrument for removing fluids from the body especially the chest. By its use an operation, which was previously considered dangerous, and was often fatal, has been rendered effectual, safe, and almost painless. Dr. Wyman was graduated from Harvard in 1833 and from the Medical School four years later. In 1853 he became Adjunct Professor of the Theory and Practice of Medicine at Harvard College, but relinquished the chair after three years' occupation. He had membership in many professional bodies, and his writings on medical subjects were of wide range and considered to be authoritative. He had been an overseer of Harvard since 1875 and was given a degree of Doctor of Laws in 1885.

Dr. Herman Mynter, who assisted in the chief operation on President McKinley, died Feb. 9, at his home in Buffalo. He was born in Denmark 53 years ago. He was remarkable for his skill at surgery and his bluntness with patients.

Dr. Franklin A. Gardner, one of the leading physicians of Washington, who was White House physician during the Administration of President Harrison and who attended James G. Blaine and Thomas B. Reed, died at

his home on Friday night of typhoid fever. Dr. Gardner, who was only forty-five years old, was born in Salem, Mass., and was educated in the school there.

Dr. Rush Winslow died last week at Appleton, Wis. He was the eldest son of the late Dr. Joseph Winslow and was born Nov. 7, 1843, at Koshkonong, Wis., receiving his elementary education at the schools of Fort Atkinson and as soon as of the proper age he entered his father's office for the study of medicine. In 1867, he commenced a course at Rush Medical College, Chicago, where he graduated in 1869. In 1870, he entered Bellevue Hospital Medical College, New York, where in 1871 he received his degree of M.D. For two years thereafter Dr. Winslow practised at Fort Atkinson, removing then to Appleton, Wis., where he has since been in the active practice of medicine and where he has proved a useful, active citizen, standing in the front rank of the men who have made the city what it is.

CORRESPONDENCE.

TRANSACTIONS OF FOREIGN SOCIETIES.

British.

RHEUMATIC ARTHRITIS AND OTHER ALLIED GOUT AFFECTIONS—THE PATHOLOGICAL ASPECT OF RECENT WORK UPON THE PANCREAS—A CONTRIBUTION TO THE NATURAL HISTORY OF DYSMENORRHEA.

J. DRESCHFELD, at the Manchester Medical Society, Dec. 3, 1902, opened a discussion on Rheumatic Arthritis and Other Allied Rheumatic Joint Affections and Their Treatment. He pointed out that the subject naturally divided itself into acute and chronic joint affections. Of the acute variety, the first place was occupied by acute rheumatic arthritis. Recent observations have thrown considerable light on the etiology of this affection, though a good deal still remained obscure. Most pathologists and clinicians were now agreed that it was an infectious disease, but the question whether it was due to a pathogenic micro-organism, which only under certain hereditary or predisposing conditions became active, was still a disputed point. Recent observers had looked upon the tonsils as the portals of entrance of the micro-organism causing acute rheumatic arthritis, and the observations of E. Meyer, Wassermann and more recently of Paine and Poynton and Menzer had shown the presence of a streptococcus in the form of a diplococcus in the tonsils of patients affected with acute rheumatic arthritis, which could be cultivated, and when injected into rabbits, produced lesions such as they saw in rheumatic fever. As yet, however, one could not look upon these diplococci as the pathogenic organism of acute articular rheumatism as pointed out by Menzier, for other micro-organisms had produced the same result. The diplococci described by the various observers showed marked morphological differences, and diplococci found in the healthy tonsils and in the tonsils affected with angina and other affections had occasionally, when injected into animals, produced similar lesions, though it must be observed that Widal and Besançon in a very large series of experiments obtained mostly negative results. It must further be observed that in some cases the injection of the streptococci obtained from the tonsils produced at times septic and at other times pyemic lesions. It would appear from these exceptional data that though the exciting cause in acute rheumatic arthritis was a micro-organism, special constitutional predisposition or some accidental causes (exposure to cold, to damp, etc.) played a prominent part in the causation of acute rheumatic arthritis, and favored the entrance of the micro-organism into the blood. The importance of these sec-

ondary causes should not be overlooked. The experimental research on this subject had further shown that acute rheumatic arthritis, septic arthritis and pyemic or suppurative arthritis were more closely related than was at one time supposed, and supported the clinical evidence, such, for example, as was shown in the relationship between a rheumatic or papillary endocarditis and septic endocarditis. The treatment of acute rheumatic arthritis offered little scope for discussion. The salts of salicylic acid were given; they reduced the temperature, relieved the pain, caused a diminution in the swelling, and were said to increase the elimination of uric acid, but they did not shorten the duration of the disease, and did not prevent collapses, and unless alkalies in very large doses were given also, endocarditis often occurred. Local treatment was essential. One form of acute arthritis was especially alluded to in which often the wrist and the ankle became affected and in which besides excessive pain there were a good deal of inflammatory subcutaneous edema and inflammation of the sheaths of tendons. The disease was very obstinate to treatment and often left the joint ankylosed. Davies-Colley described this affection occurring in women afflicted with leucorrhea. It was a septic arthritis, often due to gonorrhea, but was sometimes found independent of gonorrhea; in some rare cases most of the joints might become involved. Acute osteo-arthritis was no doubt a rare affection, but occasionally cases in which there were pyrexia, profuse and acid perspiration, swelling and pain in the joints, were seen, and in which the joints, instead of returning to normal condition, showed the appearance seen in osteo-arthritis. In the present state of their knowledge, it was impossible to say whether there was a double infection or whether the disease was primarily one of osteo-arthritis. The infective arthritis of fevers was next dealt with. Pneumonia, typhoid fever, scarlet fever, diphtheria, smallpox, influenza and cerebrospinal meningitis, were sometimes accompanied or followed by an acute swelling and pain of one or more joints. The physician had to deal here with various affections: (1) A toxic affection, due to a toxin. Some doubted the existence of a toxic arthritis, but that such an affection existed was shown by the arthritis sometimes following very soon after the injection of antitoxin serum in diphtheria; (2) an arthritis due to the pathogenic microorganisms, as in the case of pneumococcal arthritis, described by Cave and Nathan Raw and in some of the reported cases of arthritis in typhoid fever; (3) a mixed infection—the effusion into the joint, which might be serous or purulent (pyemic) containing septic microorganisms; (4) true rheumatic arthritis as a complication of the primary infective fever. Occasionally, as in typhoid fever, the vertebral column might be affected (typhoid spine) characterized by excessive pain and stiffness of the vertebral column, this, again, being sometimes a nervous affection and at other times a purely toxic affection; at other times there were distinct osteitis and periostitis. Gonorrheal arthritis in its various types was alluded to. Occasionally the vertebral column was also affected. Dr. Dreschfeld next considered chronic affections, first describing chronic rheumatic arthritis. In most persons who had had chronic rheumatic arthritis the joints again assumed their normal appearance; occasionally, however, the smaller joints formed a spindle-shaped swelling and remained so permanently; in a few cases with a marked family history of rheumatism the symptoms of rheumatic arthritis came on slowly and insidiously, the joints became stiff and painful, the muscles in the neighborhood of the joints underwent atrophy, marked deformities of the hands and feet ensued, and the patient might become

quite crippled. The distinction in such a case between rheumatic arthritis and rheumatoid arthritis was almost impossible. Such differences as had been pointed out by some observers were scarcely enough to differentiate them. He then referred to chronic rheumatoid or osteo-arthritis: a chronic disease in which one or more joints were affected, with marked changes in the cartilage and bones of an atrophic or hypoplastic character and atrophy of muscles, and resulting in marked deformity of the joint. Various affections had been classified under this head: (1) Heberden nodules. It was very doubtful whether this was osteo-arthritis. In some cases the affection was true gout, in others the lesion was a trophic one, due to overstrain and a general debilitated state of the system. Still described two cases in children who had congenital syphilis; (2) the general, progressive osteo-arthritis. Most would agree with Garrod that more than one affection was included in this group. The older observations of Wohlmann, Baumtgen and Baxall and the case described by Still pointed to its infectious nature; the more recent ones of Cave showed that often it was of a septic nature, the infective agent reaching the system through the alimentary canal; (3) arthritis deformans of monarticular arthritis. This, probably, was also microbic in origin in which, however, trauma and a debilitated condition played an important part. The various forms of spondylitis deformans, and their relation to osteo-arthritis, gonorrheal arthritis, and affections of the meninges were alluded to. In conclusion, Dr. Dreschfeld dealt with the treatment of chronic rheumatoid arthritis.

E. H. STARLING and W. M. BAYLISS, at the Pathological Society of London, Dec. 16, 1902, read a paper on the Pathological Aspect of Recent Work upon the Pancreas. They found that introduction of acid into the upper part of the small intestine produced a flow of pancreatic juice. They then completely isolated a portion of the jejunum from all its connections with nerves, and again introduced acid into the isolated gut and a flow of pancreatic juice was again produced. They thereafter thought it probable that the secretion of the pancreas was promoted, not by a reflex stimulation, but by a direct chemical effect through the blood. The next step was, therefore, to scrape the epithelium from the jejunum, pound it up with acid, and inject it into the veins of an animal; the result of such an injection was at once to produce a large flow of pancreatic juice. The subject capable of producing this result they called "secretin," but they had not yet been able to isolate it. Secretin was identical in the frog, birds and mammals, and when injected always produced a flow of pancreatic juice. The normal function of the pancreas thus depended upon the entrance of acid into the duodenum and the consequent production of secretin in the mucous membrane of the small intestine. By injecting secretin into a vein, a flow of pancreatic juice had been readily obtained. Three ferments were present in the pancreatic juice, one which acted on proteids, one on carbohydrates, and one on fats. The juice collected from a fistula had a strong action of carbohydrates, a strong action on fats, but a very weak action on proteids. If, however, the juice was allowed to flow over the mucous membrane of the intestine its action on proteids was greatly increased. When pancreatic juice was collected from the duct it had practically no tryptic properties, but when added to the scraped mucous membrane of the intestines it became powerfully tryptic. The pancreatic juice thus contained trypsinogen and needed only a body present in the succus entericus, to which the name "enterokinase" had been given to produce the tryptic ferment. They next dealt with the mechanism of the gastric and duodenal digestion. They mentioned

Pawlow's observation that the pylorus remained contracted so long as the material in the duodenum was acid, and only relaxed when it became alkaline and thus allowed a fresh quantity of acid chyme to pass. They then showed that the injection of secretin in a dog produced immense congestion of the intestine. This might be due either to the direct effect of the secretin or it might be the effect of the pancreatic juice, acting on the intestine in which the acid juice was absent. By experiment on a dog they showed that this action was due to the pancreatic juice and not to the direct action of secretin. As long as the pancreatic juice remained in the ducts, it had no action, since there were no carbohydrates and very little fat on which it could act, and the tryptic ferment was inactive without the enterokinase. They suggested that the regurgitation of the succus entericus (which contained the enterokinase) into the pancreatic ducts would produce tryptic ferments and thus cause an acute pancreatitis. The effect of secretin had been tried in diabetes, but without success.

G. E. HERMAN and H. R. ANDREWS, at the Obstetrical Society of London, Dec. 3, 1902, communicated a paper entitled "A Contribution to the Natural History of Dysmenorrhea" in which they compared a number of cases of dysmenorrhea cured by dilatation of the cervix with a number of others in which that process produced no benefit. They found no reason to think that dysmenorrhea, curable by dilatation, was associated with imperfect development of the uterus, believing that it began with the establishment of menstruation in two-thirds of the cases, and was acquired later in about one-third; that it almost always began before the age of twenty-five, but might be acquired at any age. The result of treatment they considered not to be materially affected by the length of time the dysmenorrhea had lasted, the age of patient when treated or the duration of her married life. They found that in most cases cured by dilatation the time of commencement of pain was very near the time of commencement of the flow, while in most of the cases not cured by dilatation, the pain began two days or more before the flow. In half of those cured by dilatation the pain was over in less than two days. In half of those not cured by dilatation, the pain lasted more than four days. In four-fifths of those cured by dilatation, the pain was paroxysmal; in three-fourths of those not cured by dilatation, it was constant. In most of the cases cured by dilatation the pain was not relieved by lying down. Dr. Herman and Dr. Andrews gave details showing the severity of the pain, and found that only a few patients were known to pass membranes, and that in only a few were there physical signs of disease. They found no evidences of such narrowing of the cervical canal as to hinder mechanically the flow of blood through it, but thought it possible that some degree of smallness and rigidity of the canal might hinder the physiological dilatation of the canal which should take place during menstruation, and so provoke painful contractions of the uterine body; but they were unable to adduce evidence of this.

SOCIETY PROCEEDINGS.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

SECTION OF CLINICAL MEDICINE AND SURGERY.

December 19, 1902.

Combined Intra- and Extraperitoneal Method of Removing Ureteral Calculi.—Dr. Martin remarked that in 1884 Henry Morris, of London, said the possi-

bility of removing an impacted ureteral calculi depended on its situation; that the most common site for the calculus was either near the pelvis of the kidney or near the bladder; that the calculi in the intermediate portion of the ureter were beyond reach of the surgeon.

The present case is one of complete impaction in the intermediate portion of the ureter where it crosses the brim of the pelvis. The patient was taken ill on November 20, 1901, and was thought to have appendicitis. Later on his physician made a diagnosis of renal colic and was unable to relieve his excruciating pain, even with two grains of morphine. He was quieted with chloroform. There was no rigidity or marked tenderness in spite of the severe pain. The temperature and pulse were normal. The paroxysms of intermittent pain and vomiting lasted for over twenty-four hours. No X-ray could be obtained. The incision was made through the right rectus and the stone was easily localized at the brim of the pelvis. It was tightly impacted, lying crosswise in the ureter. A skin incision was made along Poupart's ligament as high up as the anterior spine, the peritoneum was stripped back and the ureter was opened extraperitoneally. When the calculus was removed there was a gush of urine. The abdominal wound was closed and healed per primum. A drain was left in the inguinal wound but there was no leakage.

In spite of Cabot's recommendation of Israel's incision, it seems to me that the intra- and extraperitoneal method is better, for it avoids working in the dark.

Subclavian Aneurism.—Dr. Robins' patient denies syphilis, but has suspicious scars on his body; he has paroxysmal attacks of dyspnea, but no dysphagia. There is a fulness and pulsation above and below the left clavicle. There is a double murmur at the apex and at the aortic area, as well as over the pulsating area described. The heart is not enlarged. There is no Corrigan's pulse. External to the sternomastoid muscle on the left there is a thrill. The radial pulses are unequal. The patient is hoarse and has a brassy cough, but there is no abductor paralysis of the left vocal cord.

The second patient is a male of fifty-seven years, admitted to Bay View Hospital with a diagnosis of pernicious anemia for which he had been treated in another hospital. On admission the patient had a neuritis, which may be easily accounted for by the arsenical medication previously given him. His skin, formerly of a light complexion, became jaundiced before admission to the hospital, but cleared up later and now presents a striking bronzed color. He has nephritis and an irritable bladder. The teeth are bad. The pulse is variable and the patient is very weak. Since admission the neuritis has been disappearing and the complexion growing darker. The blood examination showed 4,500,000 red corpuscles; 11,200 leucocytes, with a normal differential count, no nucleated reds, or poikilocytosis; hemoglobin 85 per cent. Examination of gastric contents negative. The tuberculin reaction was very positive, the temperature rising above 103° F. For this rising, as well as on account of the pigmentation of the skin and the extreme weakness, the previous diagnosis has been changed to that of Addison's disease.

Dr. Beck said the diagnosis of pernicious anemia, made at the City Hospital, was based on the blood count which showed 1,500,000 red corpuscles. The patient was very pale, but well nourished, and was rapidly improved by arsenic. He had paresthesia, exaggerated and later loss, of reflexes, the nervous symptoms being evidently due to degeneration following faulty nutrition in the lower part of the cord.

Dr. Pleasants remarked that the patient was slightly jaundiced on admission to the City Hospital, and had later grown very pale. The bronzing of the skin now present might be due to the use of arsenic.

Multiple Exostoses.—Dr. Wholey remarked that exostoses are really osteomata appearing on the surface of the bones and involving a limited area. They may be either osteoma durum, spongiosum, or myeloidum. Their tendency to be located at the insertion of muscles gave rise to the idea that they were bone spines turned outward. They occur generally during the period of rapid growth, but are found at all ages, even in the intra-uterine fetus. Multiple exostoses usually occur in girls between the ages of three and four years. The etiology is obscure. Tillman has emphasized hereditary influences. They are usually spongy growths and are found near the centers of ossification. The vertebrae are rarely affected. On the skull a few flat elevations may occur and on the scapula they may assume a pedunculated form. When on the extremities those on the upper limbs point downward and those on the lower limbs upward, as a rule.

The present case is a Russian girl of nineteen years, a needle-worker, who came to the Johns Hopkins Dispensary on August 23, 1902, complaining of pain in the chest and nervous indigestion. Her family history is unimportant. She is subject to nightmare. The patient called attention herself to the lumps on her fingers which were distributed as follows: Right hand; index finger, two; middle finger, one; ring finger, two. Left hand, index finger, two; middle finger, one; ring finger, one. On each humerus at the inner surface of the upper extremities; on the right clavicle, three at the inner end and two at the outer; on the left clavicle, two at each end. A similar symmetry exists in the bones of the lower extremities, the exostoses occurring at the lower end of both femurs, at the upper end of the tibia. The growths measure 1×0.5 cm., and all occur on the extremities with the exception of a few on the ribs. They occur on the dorsal aspect of the fingers in each case. The symmetrical arrangement is evident from the distribution. The lower end of the femur was greatly hypertrophied and a small spicule of bone projects upward on its inner side. The upper end of the tibia was rough and surrounded by several protuberances. A full discussion of the subject will be found in Schuchardt's monograph in the *Deutsche Chirurgie*, Vol. 28.

Dr. Ruhrh remarked that in a recent case described by Cannois and Roy (*Nouvelle Iconographie de la Salpêtrière*, 1902) there was malnutrition of the bones with spontaneous amputation of some of the phalanges. There was also a loss of temperature sense. The writers emphasize hereditary influence. The grandmother, in their case, had had exostoses and tuberculosis; all her children had both, the second son, in turn having ten children, each of whom had exostoses. They conclude (a) that the pathogenesis is not known, (b) the affection is probably due to the disease of the gray matter of the cord, (c) it often occurs in association with tuberculosis.

Dr. Baer reported two cases, one in a male of thirty-five years, who had considerable atrophy of the bones. The radius and ulna being bent in the middle. The other, a male of ten years, who had multiple exostoses on all the long bones, especially at the epiphyses. Symmetrical arrangement was striking in the latter case.

Pathological Specimens from Two Cases of Aneurism.—Dr. Hirsch exhibited the first specimen, a male of sixty-four years, who was examined in 1878 and had a diagnosis of aneurism made at that time. He had had syphilis and had been struck in the

chest by a beam some time before the condition was recognized. Whitman (*Lancet*, 1902) reports a case which was known to have lasted 16 years, but no case has been found in the literature which is known to have lasted so long as the present one, i.e., twenty-four years. The aneurism was found at autopsy to be the size of a coconut and was largely filled with a lamellated clot. It projected forward and completely perforated the sternum, the manubrium being at right angles to the gladiolus. During his stay in the University Hospital the patient had a severe attack of influenza.

The second specimen is that of an aneurism of the transverse arch, extending posteriorly and accompanied by aortic insufficiency.

Two Successful Cases of Rectopexy.—Dr. Earle illustrated by drawings the operation he had done in two cases, following the method described by Tuttle. He stated that aggravated cases of prolapse of the rectum were considered hopeless a few years ago. If the mucosa alone was prolapsed, Whitehead's operation could be done, but for prolapse of the entire rectum rectopexy was necessary. Dr. Fowler, of Brooklyn, first performed the operation.

Dr. Earle's first case was a woman who had been troubled for six or eight years with the prolapse projecting two inches. The second case was a male of fifty years, who had been troubled from boyhood, the prolapse extending six inches, preventing the patient from active work.

THE JOHNS HOPKINS HOSPITAL MEDICAL SOCIETY.

December 1 and 15, 1902.

Scrofuloderma.—Dr. Gilchrist showed a case of this disease, the patient being a colored girl who came to the hospital one month previously with lesions all over her body. Six months ago a number of deep-seated hard lumps appeared on the body suddenly. Some broke down forming subcutaneous abscesses which increased in size and continued hard. The growths are movable over the muscles. The smallest measures two to three cm. across. In addition there was a brown induration on the left high 8 cm. across. On the left forearm and on the body and legs there were irregular pigmented scars. There were thus three types of lesions: (1) deep-seated nodules; (2) subcutaneous abscesses; (3) scars. The tumors are not tender as are the abscesses, some of which have become superficially ulcerated. The patient gives no former history of tuberculosis nor has she been exposed to tuberculous contagion. The diagnosis evidently lies between some rare form of tuberculosis and syphilis. There is no history of gumma nor any definite evidence of syphilis. The glands are enlarged as is frequently the case among negroes.

A guinea-pig inoculated with pus taken from the subcutaneous abscesses died on the twentieth day. Its peritoneum was filled with granulations, the mesenteric glands were caseous and the liver showed fatty degeneration. In the inguinal glands and in scrapings from the peritoneum tubercle bacilli were found. The patient gave a positive tuberculin reaction. The case therefore clears up one of the groups of skin tuberculosis. The usually recognized forms are (1) Lupus vulgaris; (2) tuberculosis cutis, usually due to auto-inoculation; (3) tuberculosis verrucosa cutis, often seen in autopsy rooms; (4) lichen scrofulosorum, in which papules are seen around the hair follicles, clearing in the centers; (5) erythema induratum scrofulosum, most frequently described by French writers. In the typical

form hard patches appear, especially on the legs with a tendency to break down and form punched out ulcers. There may be a history of tuberculosis but no other focus is found in the body; (6) erythema elevatum diutinum.

The present case belongs in the fifth group and serves to prove that lesions of this type are tuberculous. The old name, scrofuloderma, is not strictly applicable.

Blastomycetic Dermatitis.—Dr. Gilchrist showed a patient, a colored male, who five years ago noticed a small pimple on the abdomen. One month later a similar pimple appeared on the back. The tops of these pimples were rubbed off and pus exuded. The lesion spread and became ulcerative without any tendency to heal. Other lesions appeared, one near the right nipple and one in the right groin. They at first looked like subcutaneous abscesses the size of an egg and broke down and discharged sero-pus.

The lesion is papillomatous, most typical along the edges which are abruptly sloping. On pressure pus exudes from miliary abscesses situated between the papillae. The pus contains budding blastomycetes which are pathogenic to animals, especially to dogs causing pseudotuberculosis of the lungs. The lesion is painless. Microscopical sections show hypertrophy of the epidermis, miliary abscesses containing blastomycetes, pseudotuberculosis of the corium with masses of plasma cells.

Thirty-four cases of the affection have been reported, the majority of them by four or five writers in Chicago, the chief of these being Hyde and Montgomery. The culture looks like a mold and at the end of a week looks like a fine white mouse. It is very adherent to the medium. Many cases of tuberculosis of the skin have been mistaken for this disease. It may, however, be differentiated from tuberculosis (a) by its papillomatous nature with abscess formation between the papillae; (b) by the presence of the organisms which are 12 to 15 in diameter. In the present case the glands are involved which is quite unusual. At the suggestion of Bevan, KI has been tried in this case and acted like a specific. The patient was treated here a year ago and left the hospital markedly improved. He refused to stay until the lesion had been entirely healed.

Uncinariasis in Man.—Dr. Thomas Boggs showed a male, twenty-two years old, from North Carolina, a farmer and teacher by occupation, who came here complaining of general weakness. One brother died three years ago with the diagnosis of pernicious anemia. Many of the inhabitants in that section of North Carolina are anemic. The patient has been anemic for years, being always much run down after the winter's teaching. He uses tobacco freely. In the spring of 1902 the patient had influenza, and after that was troubled with diarrhea, passing some mucus but no blood. There was occasional nausea and vomiting. During the past year he has lost much in weight and strength. Since admission the patient has had an irregular temperature, running as high as 102° F., but without chills or sweats. He has had two stools daily. He is moderately nourished, very anemic, but shows no patches of pigment nor is his skin of a waxy color. There is a soft systolic murmur at base of heart. The stools contain a larger number of the eggs of *Uncinaria americana*. The adult worm is 12 to 18 mm. in length, the female being somewhat larger. The head is re-curved and is armed with chitinous teeth which wound the duodenum. It passes from place to place in the bowel and each wound continues to bleed for a long time, so that there is a greater loss of blood after the bite than during the sucking of the worm. Thirteen cases were found in the Washington Insane Asylum, one having lasted

six years. The ova have to be differentiated only from those of the oxyuris which are asymmetrical and flat. The egg of a lumbricoid is thick, shallow and easy to distinguish.

Dr. Thayer remarked that this was the second case seen in Baltimore, one having been described post-mortem by Dr. Yates (*Johns Hopkins Hospital Bulletin*, 1901). It is strange that we have been so slow in recognizing uncinariasis for strongyloid worms are comparatively frequent and the two may occur together. The eggs alone of the uncinaria appear in stools while only the living embryos of the strongyloids appear there, the two kinds of eggs being very similar but hatching very differently. Of the four cases of strongyloids seen in this hospital, three came from Maryland and one from Virginia. Uncinariasis, which is the more serious of the two diseases, is readily treated with male fern or thymol. Strongyloids, however, are hard to expel but they may cause no serious symptoms.

Dr. Fletcher said since the publication of Dr. Stiles's pamphlet on Uncinariasis he has been studying the disease in the south and has seen many additional cases. He proves these parasites to be the commonest cause of severe anemia in the south, more common even than malarial anemia. In one of Dr. Herrick's cases the eosinophiles numbered 26 per cent.

Arteritis and Arterial Thrombosis in Typhoid Fever.—Dr. Thayer said that these complications have long been recognized in France. The first case is that of a male, twenty-two years old, of strong constitution, who on the ninth day of his illness had general convulsions and became unconscious. After the convulsions he was clear. After four hours the convulsions recurred and continued at intervals for six hours. The convulsions were more marked on the right and there was conjugate deviation of the eye up and to the left. At the autopsy hemorrhage enteritis was found. Pure cultures of *Bacillus typhosus* were obtained. There was thrombosis of the temporal and parietal branches of the middle cerebral artery and meningitis and arteritis in the region of the occluded vessels. The arteritis was evidently primary, and the thrombosis was probably agglutinative, as has been described by Flexner.

The second case was that of a female, sixteen years old, who was admitted to the hospital on June 16, 1902, on the fifth day of her illness. She was delirious from the onset. On the eighth day there was consolidation at the left apex and on the eleventh day at the right apex. On the fourteenth day she became better, but it was noticed that the right foot and leg up to the knee were quite cold after the tub bath. There was no swelling. Two hours later purplish mottling appeared in these parts and arterial pulsations were not felt below the knee. The leg and thigh were greatly swollen and an irregular line of demarcation could be made out between the healthy and gangrenous tissue. The patient died on the twenty-second day, after delirium. The heart sounds were clear. No pulse could be felt below the middle thigh.

The third case is that of a male, eighteen years old, admitted on the third day of his illness. On the fourteenth day he had pain on the inner side of his left thigh and the region was found to be tender but no cord-like feeling could be made out in the saphenous vein. Two days later the left leg became swollen and the foot was cold, pulsation having ceased. Tenderness developed along the vessels. The symptoms gradually improved until the forty-ninth day, when the tenderness recurred and the pulsation of the tibial vessels could be partly felt. There was edema of the ankles. On the seventy-ninth day the patient left the hospital well.

The fourth case is that of a female, twenty-seven

years old, a teacher, admitted on the thirteenth day of her illness. On the twentieth day she had a hemorrhage from the bowels, pain at the bend of the left elbow with swelling and tenderness over the brachial artery. The left hand became cold. Gradually, however, the patient improved.

The fifth case is that of a male, eight years old, seen in the fifth week of his illness by Dr. Walter Stiner of Hartford, who has kindly given me the notes of the case. The patient had pain in the fingers of his right hand, radiating up the arm. The brachial artery was tender, pulseless and cord-like. Dr. Janeway saw the case and expected gangrene to occur. The patient, however, recovered.

Gangrene of the extremities in typhoid fever was first noticed in 1806. In 1859 it was suggested that it might be due to changes in the blood-vessels and in 1863 it was shown that tenderness preceded the thrombosis. Probably arteritis precedes the thrombosis in every case, and causes it, although there may be post-thrombotic changes in the vessels themselves. This view is confirmed by the literature of the past forty years. To account for the healing which has followed the condition of pulselessness in some of the cases, it is suggested that the pulse was merely not felt. As to the cause of the arterial changes we suppose that infection is localized in the artery walls as in the case of veins. The relation of the arteritis to the thrombosis is not always the same. In one of the cases here reported the thrombosis was evidently agglutinative and may have caused the arteritis.

To sum up, typhoid arteritis presents a well-recognized symptom complex, occurring late in the disease. There are pain and tenderness along the large arteries, especially of the leg. The vessels are pulseless and the part quite cyanotic. The outcome is either a true gangrene or complete recovery. An acute arteritis may be the cause of obscure cases of aphasia and paralysis.

Perforation of the Colon; Operation; Recovery.—Dr. T. S. Cullen presented this patient, a colored servant-girl, complained of pain at 7:30 one evening and was seen by the family physician at 9 o'clock and given morphine. Blood examination showed a leucocytosis but no excess of eosinophiles. At 11 P.M. the patient was in fairly good condition and operation was decided upon, a diagnosis of early appendicitis having been made. On opening the abdomen at 1:30 A.M. the pelvis was found full of pus but without evidence of appendicitis. The ileo-cecal valve was perfect, the cecum was obliterated and just distal to it the caliber of the colon was reduced in size to that of a small bird shot. Such a shot was actually found occupying the lumen and practically obliterated it. Just distal to this a perforation was found in the ascending colon. Eight inches of colon were resected, including the perforation and the point of narrowing. The patient is doing well. Histological study shows that the constriction was due to tuberculosis.

Adenomyomata of the Uterus.—Dr. Cullen showed a number of lantern slides demonstrating the origin of the glandular tissue in adenomyomata. V. Recklinghausen proved that the glandular tissue originated in the remains of the Wolffian duct. The lantern slides made it clear, however, that it had its origin in the glands of the uterine mucosa.

A study of the nineteen cases which have occurred in this hospital made it possible to trace the connection between the glands and the adenomyomatous tissue.

December 15, 1902.

Exhibition of Cases Illustrating Renal and Ureteral Surgery.—Dr. H. H. Young exhibited the first

patient, a male of twenty-nine years, who has had pain in the bladder and kidney since the age of two. Every two or three weeks he has had sharp attacks of pain radiating to the penis. When seen on August 28, 1901, his urine showed no shreds or pus but a week later, after an attack of pain, red corpuscles were present. The cystoscope showed the right ureter and bladder to be normal. The orifice of the left ureter was contracted and around it was a ring protruding into the bladder and bulging above it. The right ureter could be easily catheterized. On the left side the catheter entered only about one cm. and then met an impassable obstruction. No urine could be obtained from this side. The diagnosis was made of stone in the lower part of the ureter with stricture and the X-ray confirmed the diagnosis.

The operative incision corresponded to the lower two-thirds of Israel's incision. The ureter was found by palpation through the peritoneum and was dilated to a diameter of one inch. It had so grown into the peritoneum as to be almost intraperitoneal. A stone 1.5 cm. in diameter was removed with difficulty from the last portion of the ureter. No other stones could be felt by the searcher. Not even the finest probe could be introduced into the bladder through the ureteral orifice and an incision was accordingly made into the bladder dividing the stricture. The wound was drained but there was no leakage. The patient is now in good health.

The second patient, a male of twenty-five years, who five years ago had an attack of colic in the region of the right kidney and at intervals of a week had two further attacks, each lasting several hours. No pus, or blood or fragments of calculus were present. Two years ago the attacks began again and occurred monthly, the pain being felt in the bladder and testicle and radiating upward toward the kidney. In March, 1901, a small calculus was passed and the patient was relieved for six months, but the attacks recurred in September, 1901. During the last two years the pain has always commenced in the testicle and radiated thence to the bladder and kidney. On examination the patient's urine showed a few shreds containing pus cells. The cystoscope showed the bladder and both ureteral orifices to be normal. The catheter entered the left ureter to a distance of 4 cm. and then met with a tight obstruction. Clear urine was passed freely through the catheter. The right ureter was found to be functioning correctly. The X-ray showed a calculus on the left side.

The abdomen was entered, as before, and the ureter again found to be practically intraperitoneal and surrounded by dense adhesions. Four centimeters from the bladder a small calculus was found. A bougie showed that there was a stricture below this and this was dilated. Drainage was used and again found unnecessary.

The third patient, a male of twenty-one years, from Texas, who was first seen on October 17, 1902. He had not had typhoid. At the age of four years he noted a pain in his left side which was associated with intermittent swelling. From his fifth to his tenth year he had monthly attacks of pain but passed no calculus. The pain was in the region of the left kidney and, did not radiate. When ten years old the bladder became irritable and there was frequent micturition but no other bladder trouble. Between the age of twelve and seventeen the pain and swelling on the left continued. In 1897 the patient had dysentery and later an abscess in the left side which was opened. The fistula remained and was thought to come from a lumbar abscess. No urine escaped from it. Two years ago the patient was

operated on with a diagnosis of necrosis of the ribs, but no such condition was found. On examination a fistula was found below the twelfth rib into which a probe passed three or four inches. The cystoscope showed that the right half of the bladder and ureter were normal. On the left side the ureteral orifice was abnormal. There was atrophy of the trigonum and the orifice of the ureter did not contract. A diagnosis of obstruction of the left ureter was made and the X-ray showed five stones in the region of the left kidney. At the operation the kidney was found surrounded by dense fibrous adhesions and within it were five calculi. The twelfth rib had to be excised to remove it.

The fourth patient, a male of thirty-five years, who came complaining of pain in the left side and his back, in September, 1902. This pain was first noticed three years ago and radiated to the bladder and penis. The attacks were dull at first, then very severe, lasting 15 minutes. They occurred twice a week but no calculi nor blood were passed. The last attack was two hours long. There had been fever and night sweats, but no other evidence of tuberculosis. On examination the patient was found to be tender in the region of the right kidney; the urine contained blood and pus. The cystoscope showed the right ureter and the bladder to be normal. The left ureteral orifice was surrounded by four or five polypoid growths and there was a purulent ooze from the orifice. The right ureter was catheterized and found normal, but the catheter would not enter the left ureter. The X-ray showed no calculus. At the operation the ureter was found to be thickened, the kidney lobulated and contained miliary tubercles at its lower end. There were miliary tubercles found in the pelvis of the kidney and ureter. The patient did well after the operation but still has two fistulas which, however, are closing rapidly.

The features of the case are (1) the similarity of the attacks, lasting five years, to attacks due to calculus; (2) the absence of evidence of tuberculosis beyond night sweats; (3) the resemblance of the cystoscopic picture to that seen in calculus.

The fifth patient, a male of forty-four years, who came complaining of an enlarged spleen. In 1893 he had a severe attack of typhoid with orchitis one month after the attack. Convalescence was slow. One year later there was pain in the back and irritability of the bladder. The urine, at that time, was ropy and mucous. In 1897 pain was again felt in the region of the left kidney and has continued since. There have been headache, nausea, vomiting and loss of weight. One doctor after another treated the patient unsuccessfully and while leaning on the railing of the boardwalk at Atlantic City, before coming to me in May, 1901, the patient felt a swelling in the abdomen. His wife made a diagnosis of an enlarged kidney but the patient felt sure it was a tumor of the spleen. On examination the inner edge of the kidney was found to reach the mid-line, the lower edge reaching Poupart's ligament. The urine was full of pus. The operation was done under cocaine. Calculi were removed from the large kidney and a drain was left in. Seven months later, the sinus closed and symptoms of pyonephrosis again appeared. At the second operation the kidney was removed and found to be filled with pus-cavities and to have a capsule two cm. thick. Recovery was uninterrupted. *Bacillus typhosus* was isolated from the urine and from the kidney. The patient gave a positive serum-reaction.

The sixth patient, a male of thirty-eight years, now in the hospital, who ten years ago was seized with a dull aching pain in the left side which has continued ever since. No calculus or blood has been passed. There have been night-sweats. On examination the urine

was clear, there was an induration in the region of the left kidney. The cystoscope showed a reddened and thickened ureteral orifice on the left and the catheter met an obstruction 1.5 cm. above the bladder. The X-ray showed nothing. No tuberculosis was found elsewhere in the body. The tuberculin reaction was negative. At the operation a hard mass was found in the region of the left kidney which at first looked like carcinoma. However, it proved to be a capsule 2.5 cm. thick, surrounding a perinephritic abscess around the kidney. The kidney was largely destroyed and in it were several large stones. The X-rays evidently could not penetrate the thick capsule. A rib had to be resected in order to reach the kidney. The patient made an uninterrupted recovery.

The seventh patient was a male who was seized with pain in the groin 23 years ago. There have been intermittent attacks ever since, the pain never radiating to the testicle. For two years the attacks have been severe, recurring every four weeks. No blood or calculi have been passed. Only since the patient was first seen has there been pain in the kidney region. The X-rays showed a large calculus in each kidney. The cystoscope showed pus exuding from both ureteral orifices. One large calculus and nineteen smaller ones were removed from the right kidney at operation. The kidney was not removed. Recovery has been uninterrupted.

Nine cases of intra-ureteral calculus with operation have been reported; six abroad, one under Dr. Finney's care, and the two reported above.

Dr. Hunner reported a case of a female, with seven children, who had had pain in the left kidney region over 18 years. For four years the pain was in the region of the bladder and there was frequent desire to urinate, with sudden stoppage of the urine during the flow. The cystoscope showed the left ureter to be normal, the right ureter could not be seen but the right half of the bladder was filled with a tumor mass. The diagnosis lay between tumor of the broad ligament, stone in the intravesical ureter, or a cystic dilatation of the lower end of the ureter. At the operation a vesicovaginal fistula was made and the tumor when cut into proved to be a dilated ureter of the size of the middle finger. A window was made in the cyst wall and the mass is now retracting rapidly.

Sequestration of the Bladder.—Dr. Kelly said that in ulcer of the bladder a suprapubic operation can usually be done extraperitoneally but in some cases, if the ulcer penetrates the bladder, the operator has to enter the peritoneum. Thus in a recent case of tuberculosis of the bladder the peritoneum was torn into in spite of every effort to prevent it. A new method was therefore devised for closing off the bladder from the general peritoneal cavity. The peritoneum was fastened by sutures to the uterus and also to the broad ligament, and was then pushed away from the bladder and cut off.

Dr. Hunner remarked that there were two objections to the method; (1) if the omentum were incised, as Dr. Kelly suggested might be done in some cases, chronic adhesions would form and cause pain; (2) the method could not be used in women who were likely later to bear children.

Gonorrheal Suppurative Myositis.—Dr. N. M. Harris and Mr. Louis Haskell said it has been known since 1890 that the gonococcus may produce many lesions other than urethritis. Since 1892 a number of cases have been described as suppurative myositis, due to the gonococcus, but in most of them the conclusions have not been definitely proved. Thus in 1899 Survel reported eighteen cases, but only four of them were

true myositis. In two the diagnosis was made by cover slips; in another the organisms described were isolated from the blood but not from the muscles. Ware (*American Journal of the Medical Sciences*, 1901) gives one case in which there was a history of chronic gonorrhea. The patient was unable to use his right arm, and on examination the posterior scapular muscles were found to be indurated. In shreds from the patient's urine gonococci were found. The tumor contained a serous fluid but no pus. Cultures were sterile but coverslips showed unmistakable gonococci.

The present case is that of a woman, thirty-four years old, admitted to the hospital July 3, 1902, complaining of stomach trouble. There was no history of rheumatism, but a long-standing vaginal discharge with burning micturition. Four weeks before admission the patient noticed a lump on the calf of the leg which was quite painful. Another similar lump developed in the sacrolumbar region. On examination the right leg was found to be considerably swollen below the knee and there was tenderness in the lumbar region. The leucocytosis was 16,000. Widal's reaction was negative. At the operation 759 c.c. of bloody pus was evacuated from the abscess in the leg and a large intramuscular abscess was evacuated in the sacral region. Coverslips showed gonococci and gonococci were grown on hydrocele agar tubes. Blood cultures made three days after the operation were negative.

Dr. Thayer said that in view of our present knowledge of gonorrheal septicemia it is not strange to learn of a new localization for the organism. He has seen three fatal cases of gonorrheal endocarditis outside of hospital practice, one of them last summer, the patient being a male of twenty-five years. After a mild attack of gonorrhea, which was treated by irrigation, arthritis developed and the patient had six severe chills before being seen. He became anemic, had further chills and fever and there was cardiac hypertrophy with a systolic murmur. The patient died six weeks ago. Blood cultures were negative.

Dr. Randolph reported three cases of gonorrheal arthritis, in which the origin of the infection was ophthalmia neonatorum. The latest is that reported by Paulsen and Kiel. An infant developed ophthalmia on the third day, which was followed on the eleventh by arthritis of the right knee and then of the left knee. Exudates removed by tapping contained gonococci.

Syphilitic Perineuritis.—Mr. Remsen exhibited this patient, a colored male, twenty-nine years old, who was admitted on April 25, 1902, with hemorrhages from the mouth. Syphilis was denied. In 1899 the patient was vaccinated and had pain in the arm like pins and needles for seven months. One year after vaccination the arm began to atrophy and there were cough and blood expectoration for one year previous to admission. On examination the left arm was found to be distinctly atrophied. Once during his stay, tubercle bacilli, very few in number, were reported to have been found in the sputum. On May 25 the patient died after a severe hemorrhage. At the autopsy the lungs were found to contain cavities and areas of caseation, with erosion of the pulmonary arteries. The muscles of the arm were much wasted. There was marked thickening around the brachial vessels and nerves, and the brachial veins were thrombosed. Above the lesions in the arm the nerves were normal. At the point of involvement there was peri- and endoneuritis with endarteritis in the vessels. Below the lesion the nerves were degenerated. The muscles showed degeneration and fibrous transformation. Microscopically no giant cells, no tubercle bacilli and no miliary tubercles were found in the lung, and the appearance of the lesion was similar

to that of the process around the nerves in the arm. A diagnosis was therefore made of syphilis of the lung and gummatous perineuritis in the arm.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPEDIC SURGERY.

Meeting of January 16, 1903.

T. Halsted Myers, M.D., Chairman.

Presentation of Cases.—Dr. Taylor presented a child six months old, no history of sickness or injury, who two weeks before was brought to the hospital on account of "snapping of the left knee." On examination it was found that the tibia becomes voluntarily subluxated forward, and was pulled back with an audible snap; this is specially noticeable when the child kicks and cries. The condition was noticed only three weeks ago by the mother. Birth was normal.

Dr. Sayre had seen some similar cases in children eight to nine years old. In his cases, if the leg were supported, the slipping did not occur.

Dr. Whitman had seen a number of such cases as that presented, also others in which the motion occurred in other joints. Last week he observed a child who "snapped" both hip-joints. He thought in the cases of "snapping knee" that the motion of the tibia was usually sideways rather than forward.

Dr. Shaffer presented three cases operated by Dr. Lorenz on Dec. 18, and spoke of a fourth. The first case, a girl aged eight years, had had some little pain for a few days after operation, slight ecchymosis in the inguinal region, otherwise satisfactory. Can go about with a chair but does not walk alone. The second case had been taken home after a week and a half and had done well under those surroundings. The fourth case was satisfactory, and could also get about with support. The other case was also doing well though the child was not present.

Dr. V. P. Gibney presented the following cases:

SEX	AGE	SINGLE, DOUBLE	PREVIOUS TREATMENT	DATE	OPERATOR
Female	9	Single	None	Dec. 15	Muller
Female	6	"	"	"	Lorenz
Female	7	"	"	"	Lorenz
Female	3	"	"	"	Gibney
Female	3	Double	Stretch, Weight and Pulley	Dec. 16	Whitman
Female	10	"	None	"	Gibney
Female	7	Single	"	"	Warren
Female	6	"	"	"	Whitman
Female	7	Double	Stretch, W. and P.	"	Whitman
Male	4	Single	None	Jan. 13	Gibney
Female	10	"	Stretch, W. and P.	" 15	Gibney
Female	11	"	"	" 16	Warren
UNSUCCESSFUL OPERATIONS					
Female	10	Single	Exten. bed, W. and P.	Dec. 16	Whitman
Female	10	"	"	" 30	Gibney
Female	12	Double	"	" 30	Whitman

In regard to the immediate discomfort of the operation, Dr. Gibney said that no patient in the hospital had been obliged to take a narcotic except probably on the first night and then only a small dose. As soon as practicable the cases were fitted with a high shoe and given a chair and allowed to go about the wards.

Walrus Fin.—Dr. Gibney also presented a case of a rare deformity, a reversion of type, as it were, or "walrus fin" deformity, in a child five years old. There was also congenital equino varus of the left foot and equino valgus of the right. It was being kept under observation and the number of bones lacking, the size of those present and methods of reducing the deformity were be-

ing determined. The scapulae are rudimentary and the arms are in extreme inward rotation; the child can feed herself with difficulty.

Dr. Whitman said that the deformity in this case was in a way accounted for by the fact that the child was evidently in a constrained position in utero. We had seen the patient in the early months of life. It was a breech presentation, the extended limbs were flexed on the abdomen so that its feet were on either side of the head and the arms were fixed between the thighs, the hands being pressed into an attitude of abduction. This attitude could be reproduced for many months. It evidently explained the apparent ankylosis at the knee and elbow joints and the failure in muscular development.

Dr. V. P. Gibney stated that in the case he presented some years ago the hips were dislocated and the arms were in the same position as the case shown. It was also a breech presentation.

Congenital Dislocation of the Shoulder.—Dr. Sayre presented a case somewhat similar to Dr. Gibney's, resembling those reported by Scudder, of congenital dislocation of the shoulder, with twisting of the arm and slight flexion of the wrist. The patient, a boy, had been unable to use the left shoulder since birth. The diagnosis was separation of the epiphysis at the upper end of the humerus which had been unrecognized. The scapula on the left side is also much smaller than its fellow.

Dr. Fiske presented a girl of twelve years, seen Nov. 10, 1902, who, after a fall on the back of the wrist with the hand in extreme flexion showed the condition apparently of anterior dislocation of the carpus. There was no swelling, edema or sensitiveness. With a good deal of force the condition was reduced and the wrist put in plaster of Paris for three weeks, at the end of which time, when the dressing was taken off, the wrist was in exactly the same condition as before reduction was attempted. Dr. Fiske asked for suggestions as to treatment.

Dr. Whitman presented a case first seen two weeks ago. The patient, a youth eighteen years of age, complained of discomfort in the shoulder. On examination the right upper arm was found to be nearly two inches shorter than the left. Dr. Whitman thought the patient had probably always had more or less discomfort and thought that the shortening was due to arthritis or epiphysitis in early life. The X-ray showed downward and inward displacement of the head of the bone, as well as shortening of the shaft.

Dr. Homer Gibney presented a case of cured tuberculous disease of the ankle joints in a young child, eight years of age. The treatment was according to his usual method of putting the limb up in plaster and cutting windows in the bandage if suppuration occurred, through which drainage was carried out, followed by the use of apparatus. In the case presented no apparatus was being worn, the child was at home and went about as it pleased.

Dr. Homer Gibney also presented an X-ray of a case of dislocation of the fourth cervical vertebra, in a man who had fallen eight feet. He complained of pain, the head was tipped forward, the chin to the right, the pain was present in both shoulders. The discomfort was great and when seen 10 days after the accident in the dispensary, traction was decided upon. He was suspended in the swing for five minutes, and the pain was relieved, and he was able to get his arms above his head in six hours. He was suspended a second time for 10 minutes. The symptoms were all relieved and he went back to work. He referred to another case, reported some years ago, the patient being a motorman. In

some cases a half jacket was applied and in some the Thomas collar was used.

Discussion of the Lorenz Cases, and Other Hip Cases.—Dr. Taylor spoke of three cases operated by Dr. Lorenz at the Post-Graduate Hospital, two single, one double dislocation. They had done well, the shock was moderate and the pain not severe after the first 10 days. There was a great deal of ecchymosis and the children have been slow in learning to walk. A symptom presented in the two unilateral cases, and which he thought he noticed in one of the cases shown by Dr. Gibney, was paralysis of the quadriceps extensor femoris. This was explained he thought by forcible stretching of the anterior crural nerve. Dr. Taylor did not think this paralysis was a serious matter, or it would probably be entirely recovered from. He expressed surprise that none of the children operated on a month ago could walk, he did not consider their hobbling about with support or a roller chair as walking.

Dr. Myers thought it impossible to be sure that the paralysis of the quadriceps extensor existed, as in nearly every case the shortening of the ham-string muscles was not fully overcome at the time of operation, and this would prevent voluntary extension of the leg in its new position; moreover the electrical reactions could not be taken as the limbs were still in plaster.

Dr. Sayre reported on two cases operated on by Dr. Lorenz, both of which were in good condition. The case of double dislocation still showed some ecchymosis, as did the case of single dislocation. The children seemed reasonably comfortable, though the unilateral case was as yet unable to walk without assistance.

Discussion of the Case of Walrus Deformity.—Dr. Taylor referred to a somewhat similar case some years ago, where the elbows were ankylosed in extension and the shoulders very stiff. He thought the etiology of these cases was still obscure though Dr. Whitman's explanation threw some light upon it.

Dr. Sayre remarked upon the marked contraction of the flexors of the wrist in Dr. Gibney's case. The hand seemed in a condition similar to that seen in many club hands with deficient bones. The internal rotators of the shoulders were also contracted but the movement at the elbow-joint seemed fair. He thought by constant traction the arms could be brought into good position.

Dr. Gibney mentioned that in the reported case, several years ago, he had corrected the feet and had developed a fair-sized patella, also hip dislocation, which existed, had been reduced and he had secured a little motion at the knee. He had tried holding the shoulders back at various times but it seemed to cause great distress. He said he felt at a loss to know just what to do with the upper extremities.

Dr. Shafer suggested the daily holding of the limbs in position for a longer or shorter time. He did not think good results would follow forced position resulting in breaking of the tissues. Not having carefully examined the patient, however, he could not offer any definite suggestions.

Dr. Dowd suggested the feasibility of elongating the flexor tendons of the hands by operation.

Dr. Sayre thought that a good deal could be accomplished by elongating the flexor tendons and constantly keeping the shoulder back in position. This could be done on one arm at a time to avoid, as far as possible, the great discomfort consequent in immobilizing both arms. He spoke of a case under treatment in which the stretching process was carried out each time as long as the patient could endure it, and a fairly good position was being obtained.

Discussion of Dr. Sayre's Case.—Dr. Taylor said that the case appeared to be one of obstetric palsy with

partial recovery. In such cases modeling of the joint's surfaces and subluxation, due to prolonged muscular contractions with vicious fixation of the joint was occasionally met with. Many of the cases of so-called congenital luxation of the shoulders were probably of this character.

Dr. Whitman referred to the open operation used by Dr. Phelps in contrast to bloodless reduction, stating that the latter was the operation of choice. He agreed with Dr. Taylor that the case presented by Dr. Sayre was one of obstetric palsy with secondary subluxation of the femur. He thought true congenital dislocation was extremely rare. In reducing the dislocation, he proceeded much as in the Lorenz operation for dislocation of the hip. He usually put the arm up in the Sayre position for fractured clavicle, but in some cases had fixed it with the upper arm raised to the level of the shoulder straight from the side. He had only operated on four cases of which two had disappeared from observation. He simply expected to overcome the deformity and to restore the power of supination of the hand, he does not look for restoration of motion at the shoulder-joint.

Dr. Myers said he had several times stretched, under ether, the contracted pectoral muscles in a similar case, but without satisfactory results.

Dr. Sayre had as yet no results, his cases being as yet under observation or had disappeared. He considered the free shoulder motion due to the formation of a new glenoid cavity. He thought as to treatment, that while forcible manipulation was theoretically proper, its results were uncertain.

Discussion of Anterior Dislocation of Wrist.—Dr. Whitman thought this resembled cases of so-called spontaneous subluxation, described by Madelung. The other wrist presented a somewhat similar condition and it might be that the fall had simply exaggerated a pre-existing deformity.

Dr. Sayre said that the lower end of the radius seemed to him to be abnormally shaped. He thought there was a twist in the lower epiphysis of the radius, as if it had been fractured. The cartilage below the ulna was also dislocated. He observed that the child was probably rickety, and that this had a bearing on the treatment.

Dr. Wallace said that he felt pretty sure from examination, that the tendon had slipped over the styloid process and this retained the position of deformity. He felt confident that if the tendon were pulled back into place and the wrist fixed long enough there would be no further trouble.

Case of Dr. Whitman—Short Humerus, Arthritis.—Dr. Taylor remarked that he had seen a number of cases of congenitally short humeri; such cases came under the class of phocomelia. This condition had been found in epileptics, and had been classed as a stigma of degeneration. The case presented, however, did not come under this category, as it appeared to be due to previous joint trouble.

Discussion of Dr. H. Gibney's Cases.—Dr. V. P. Gibney said that the case of tuberculous ankle-joint was in keeping with their general results. He spoke of a series of 56 cases which he looked up some years ago with final recovery. It seemed of this series that the joints which suppurated most made the most permanent recoveries.

Dr. Sayre, referring to the case of dislocated cervical vertebra, said he had seen several similar cases with fracture and displacement of the vertebrae with paralysis in one or both arms. After support and the use of a jacket extending to include the head, the paralysis disappeared in a comparatively short time, eight weeks. The head was supported six to eight months. The deformity had not been entirely relieved.

BOOK REVIEWS.

A TEXT-BOOK OF THE DISEASES OF THE EAR FOR STUDENTS AND PRACTITIONERS. By Professor Dr. ADAM POLITZER of Vienna. Translated by the personal request of the Author and Edited by MILTON J. BALLIN, Ph.B., M.D., and CLARENCE L. HELLER, M.D. Fourth Edition. Lea Brothers & Co., Philadelphia and New York.

THIS fourth edition of Politzer's Text-book makes it the most complete in existence on Diseases of the Ear; and, through its revision and recent additions by the author, the most up-to-date treatise. For example, the subject of Brain Abscesses of Otitic Origin is studied in the light of all the valuable Italian, German, French, English and American literature recently contributed to it. Nothing of value pertaining to such a complete treatise has escaped this master who has taken pains to go into detail in every matter calling for it. Even its relation to life-assurance is considered. Yet, with such thoroughness, the work appears in a volume of only 884 pages, handy and compact and just suited to the purpose of daily and diligent use by the physician who seeks to know all that this master teaches.

Confining himself to the subject of the ear, the author purposely devotes but little space to the nose and nasopharynx and refers his readers to other treatises on these subjects. We like the references in the text to footnotes. Yet this does not exhaust the bibliography, for twelve pages printed in small type are devoted to this, under the title Index of Literature, and abounds in references to American authors. Besides this there is a copious general index.

The publishers have contributed their share in making the book what it ought to be. There is nothing superfluous in it. The ink and type are sharp and clear, though the "make-up" (a minor matter) must have had a new hand. If the free margins near the binding had been widened one-eighth or one-sixteenth of an inch at the expense of the outer margins, it would have been better. But type, paper, compactness and handiness of size all combine to please.

BOOKS RECEIVED.

The MEDICAL NEWS acknowledges the receipt of the following new publications. Reviews of those possessing special interest for the readers of the MEDICAL NEWS will shortly appear.

BIOGRAPHIC CLINICS. By Dr. George M. Gould. 12mo. 229 pages. Illustrated. P. Blakiston's Son & Co., Philadelphia.

SURGICAL ANATOMY AND OPERATIVE SURGERY. By Dr. J. J. McGrath. 8vo, 556 pages. Illustrated. F. A. Davis Company, Philadelphia.

BOOK ON THE PHYSICIAN HIMSELF. By Dr. D. W. Cathell. Twentieth Century Edition. 8vo, 411 pages. F. A. Davis Company, Philadelphia.

SYSTEM OF PHYSIOLOGIC THERAPEUTICS. Edited by Dr. S. S. Cohen. Vol. V. Hygiene. 8vo, 539 pages. Illustrated. P. Blakiston's Son & Co., Philadelphia.

MANUAL OF MATERIA MEDICA AND PHARMACOLOGY. By Dr. D. M. R. Culbreth. Third Edition. 915 pages. Illustrated. Lea Brothers & Co., Philadelphia and New York.

ATLAS AND EPITOME OF THE DISEASES OF THE MOUTH, PHARYNX AND NOSE. By Dr. L. Grünwald. Edited by Dr. J. E. Newcomb. 8vo, 219 pages. W. B. Saunders & Company, Philadelphia and London.